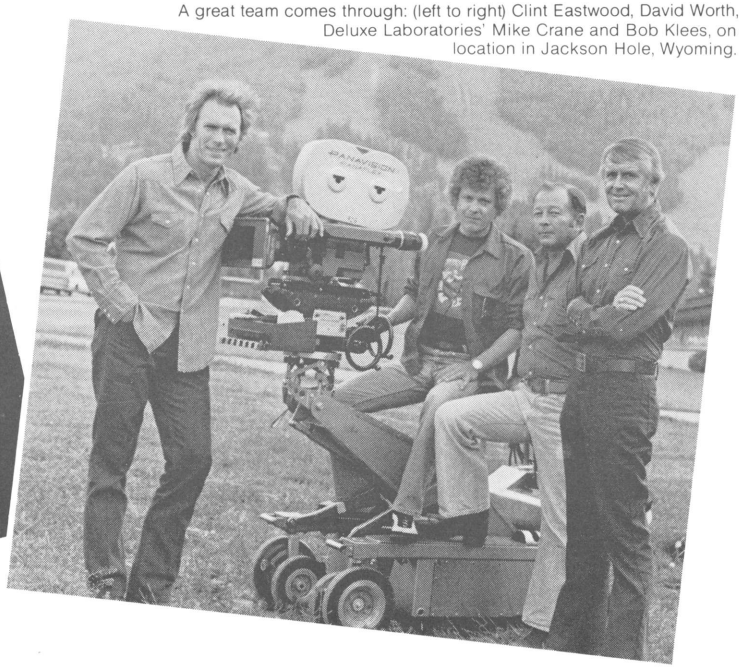
American Cinematographer
International Journal of Motion Picture Photography and Production Techniques
SEPTEMBER 1980/$2.00

THE FILMING OF James Clavell's SHŌGUN



A great team comes through: (left to right) Clint Eastwood, David Worth, Deluxe Laboratories' Mike Crane and Bob Klees, on location in Jackson Hole, Wyoming.

NOTHING BUT THE BEST FOR CLINT

Chalk up another winning combination—Clint Eastwood and Color by Deluxe.

"Any Which Way You Can," slated for Warner Bros. release this Christmas, marks the eighth Eastwood film that will get the Deluxe treatment. Also teaming up with Clint once again is cinematographer David Worth, who drew praise for his work on "Bronco Billy."

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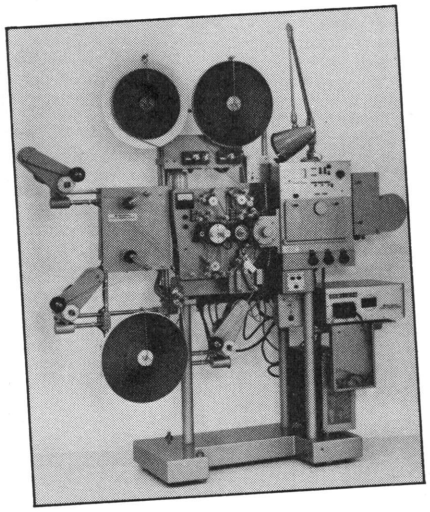

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The Academy of Motion Picture Arts and Sciences in Hollywood has presented a Technical Achievement Award to three people at DuArt who were responsible for developing micro-computer techniques to control color motion picture printing.

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International Journal of Motion Picture Photography and Production Techniques

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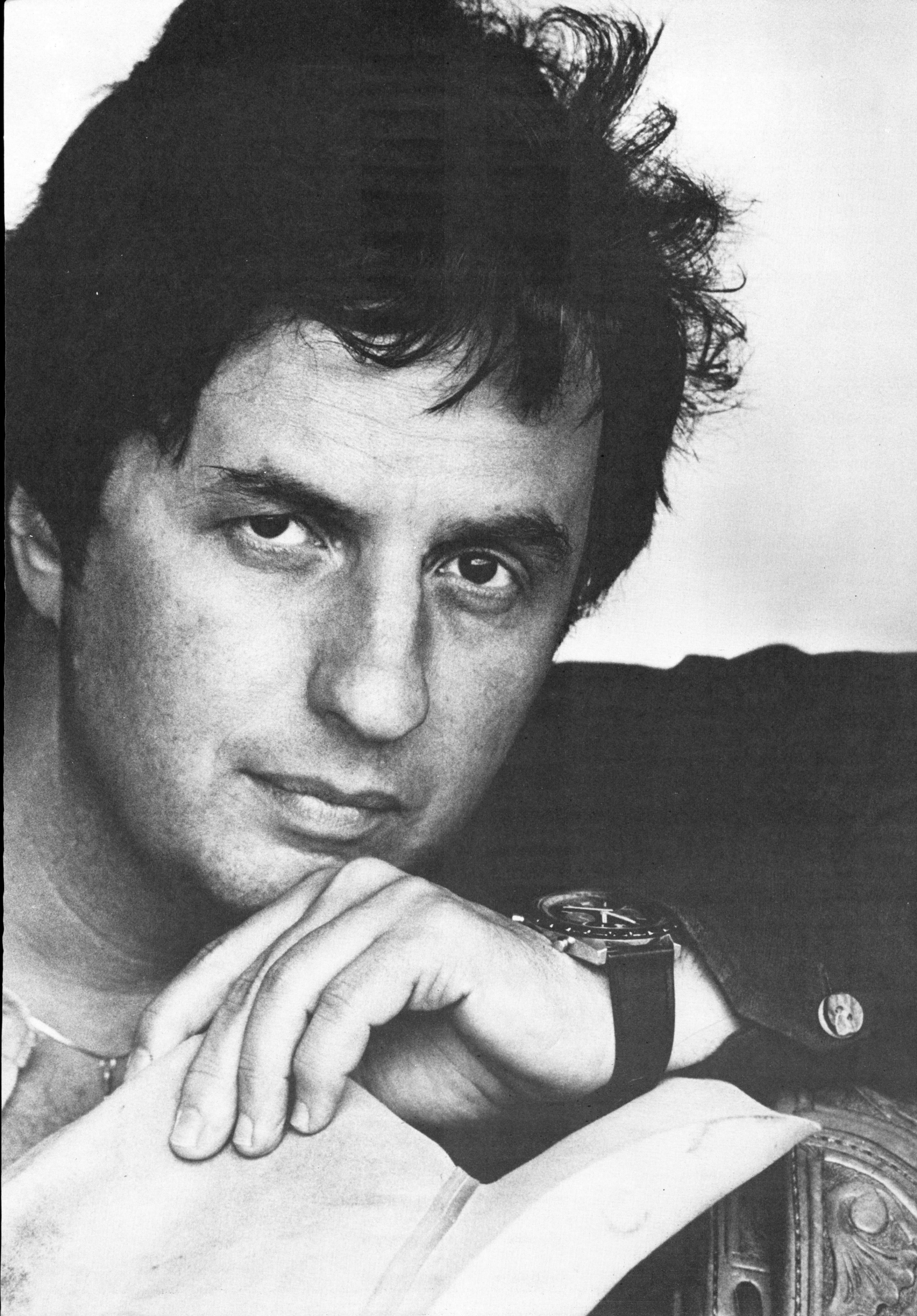

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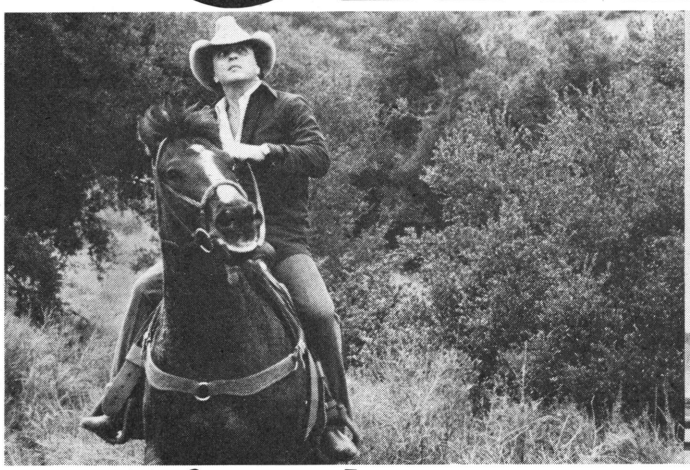

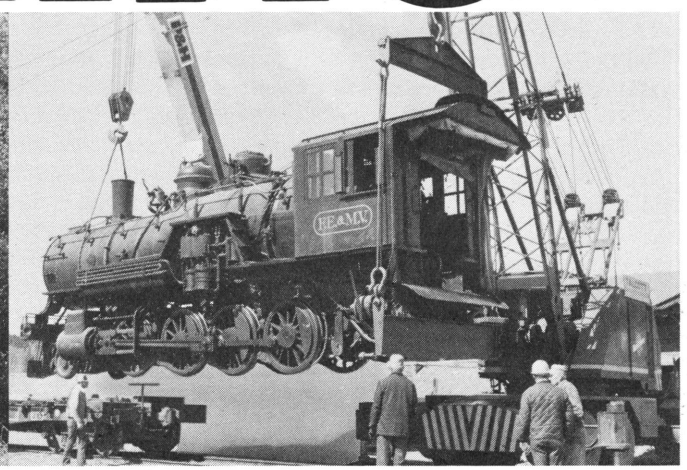

"If you don't get it right, what's the point?"

Director Michael Cimino lit up Hollywood last year like an unexpected comet, winning two Academy Awards for his motion picture, The Deer Hunter. *In this, as in his newest film,* Heaven's Gate, *Cimino relentlessly pursues a private war on shortcuts and easy solutions. Here he tells why.*

"I never want people to feel that they have watched a movie, that they have looked at something, but rather that they have been somewhere.

"Everything we do is aimed at demolishing the barrier of the screen's two-dimensional plane. We have to remove the camera—erase the frame. Film is more than two people talking against a background. If we think of it as background, it will be background.

"What we want to do as we take the audience on their journey is to remove all the factors that threaten their belief that they are participating, that they are there. And there are thousands of details.

"Example: In *Heaven's Gate* there is one Montana sequence with 250 emigrants roller skating. The time is 1880. And we had to build a rink of that period and find 250 people, men, women, children, properly cast, who could skate. Or they had to be taught to skate.

"Each of them was given a cassette of the music they would be skating to, and they were sent off for six months. Then they were brought back and individually wardrobed for the period, according to old photographs. In one Idaho sequence an entire high school gymnasium was used just for wardrobe. We built a city of six-story buildings there and we had over 1000 people on a street lined with forty-foot-high telephone poles. We had 80 teams of horses, properly harnessed—the largest number ever assembled for a motion picture, a steam locomotive, a Masonic parade, etc.

"We sent people scouring the country for a standard-gauge steam locomotive. And when we found it, we had to have it and the rest of the train brought in on flatbed cars from Denver across five states! And before shipping, the cars were rebuilt inside and out.

"There's nothing that appears in this one scene, apart from the landscape, that we didn't have to put there. We did everything we could to get it right. If you don't get it right, what's the point?

"The film stock is a factor. We're using Eastman color negative II film 5247, flashing the negative 10 percent, the print 30 percent, and printing an additional increment of sepia. The flashing increases latitude in the dark areas, but still preserves the mood. Eastman film is quite remarkable. In the combat sequences of *The Deer Hunter* we tried to make the film appear grainy by taking it through five generations. We still couldn't get it as grainy as we wanted to. We haven't fully explored the potential of this film stock. A few years back, we pulled the details of a face out of an apparently dead black silhouette. It was absolutely astonishing."

If you would like to receive our publication for filmmakers, Kodak Professional Forum, *write Eastman Kodak Company, Dept. 640, 343 State Street, Rochester, NY 14650.*

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WHAT'S NEW

IN PRODUCTS, SERVICES AND LITERATURE

10th ANNIVERSARY MARKS FILMEX'S RETURN TO HOLLYWOOD

"The Los Angeles International Film Exposition (FILMEX) is returning to Hollywood where it originated in 1971," Gary Essert, FILMEX Director, announced.

In a press conference at the Aquarius Theatre Essert said, "As a first step in preparing for the 1981 Exposition we will be moving the FILMEX corporate offices to the Aquarius on August 1st." The Aquarius Theatre—with its own unique past—will be the central location for all FILMEX activities in the future, including the annual Exposition which will also utilize several other Hollywood theatres. The 1981 Exposition will be held April 1st through the 18th.

An extensive program of FILMEX activities in Hollywood is planned:

- The first took place when the world premiere of Warner Bros.' HONEYSUCKLE ROSE was held at Mann's Chinese Theatre. "This was our 'going home' celebration," said Essert, "as it was the first event that we've done in Hollywood since the Exposition was last held there in 1974."
- Another benefit premiere will be staged on December 10th. Plans are already underway with Columbia Pictures and Rastar.
- An informal open-house and Founder's Day party will be held for FILMEX Society members and Hollywood merchants and friends.
- A special anniversary event is being prepared in conjunction with The Orchestra which will perform live with a silent film at a famous Hollywood movie palace.

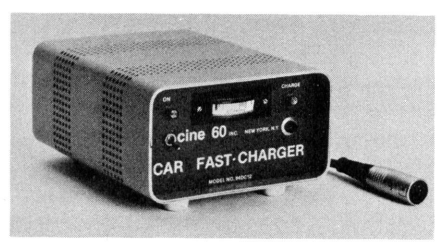
"Also," Essert continued, "another step toward achieving FILMEX's long range goal, the establishment of The Los Angeles Film Center, has been taken. Max Palevsky, FILMEX Trustee, has agreed to coordinate and underwrite a design competition for the Center. Four distinguished American architects will be invited to submit concepts for the multimillion dollar project which will be located in Hollywood where the search for a site has been narrowed to three locations. The Center will include a year-round cinematheque, restaurant, bookshop, offices and additional facilities for the study and enjoyment of motion pictures.

Gordon Davidson, Artistic Director of the Center Theatre Group (which recently purchased the Aquarius), added his impressions about the new FILMEX/CTG relationship. Davidson said, "I'm delighted. We don't look on this as a landlord/tenant situation, but as the first step in a tremendously exciting partnership, one which we hope will begin to create innovative new links between the worlds of theatre and film."

Also taking part were Bill Welsh, President of the Hollywood Chamber of Commerce, who saw the move as a major development in the current Revitalize Hollywood campaign, and Peggy Stevenson, Los Angeles City Councilwoman.

"Although the Exposition has progressed substantially during the past six years in Century City," said Essert, "we feel that Hollywood is an appropriate location for several reasons—it is actually closer to and more convenient for the majority of our audience; public transportation is better; a more economical and wider range of restaurants, shops and parking is available; the Exposition itself is less costly to produce in Hollywood than Century City; and there is the historical consideration—Hollywood is where FILMEX started and 'the Hollywood Dream' has always been a large part of the moving spirit of FILMEX."

Tom Pollock, Chairman of the FILMEX Board of Trustees, said, "This is the beginning of a new era for FILMEX. On the eve of our 10th anniversary we have begun a very promising working relationship with Gordon Davidson and the Center Theatre Group. I'm very excited about the potential of our working together." ■



NEW PORTABLE FAST CHARGER FOR NICKEL-CADMIUM BATTERY BELTS, BATTERY PACKS

A new portable fast charger for nickel-cadmium battery belts and battery packs is available from Cine 60 Inc. The charger is intended for use in automobiles, mobile vans, boats, or any location where a 12-volt, 100-watt dc power source is available. The unit will fast-charge 4 ampere-hour nickel-cadmium battery power supplies used to operate portable TV cameras, tape recorders and battery-operated lighting equipment.

The fast-charger operates directly from the vehicle's electrical system; there is no need to use an expensive, inefficient inverter ahead of the charger. The unit weighs only 3 pounds and is small enough to conceal under an auto dashboard. It will recharge any type Cine 60 ±6, ±7.2, 12, 13.2 or 14.4 volt, 4 ampere-hour fast-charge battery in only 1 hour's time while the vehicle is in use.

The unit consists of a high-frequency charger and control circuitry which automatically cuts off the current at full charge. The fast-charger has a reverse-polarity sensor to prevent operation if it is incorrectly connected to the vehicle's electrical system and is fused to protect against short circuits. Color-coded input leads permit connection to the vehicle electrical system. The output lead is fitted with a 5-pin Cannon connector wired to match all Cine 60 fast-charge battery supplies. A pair of LEDs are used to show when the unit is operating and a 5-ampere meter indicates the normal charging current. The charger will operate from any dc power source of 10.5 to 16.0 volts at 100 watts.

Suggested price of the car fast-charger, catalog No. 94DC12, is $275.

For further information, contact Cine 60 Inc., 630 Ninth Ave., New York, N.Y. 10036 or phone (212) 586-8782.

•

FRIES 35R CONVERSION

Announcing the new Fries 35R, a reflex conversion of the STD-GC high speed camera.

More than a reflex, the 35R is a modernization, adding features that are available only on the newest generation of cameras.

Features include an orientable viewfinder, correctable thru 360 degrees, with all-new fast optics, coated for a brighter image. Film clip register pins, located in the viewing system, are precision aligned to the camera aperture. The conversion also includes lens mounts that utilize the new fast, commercially available lenses. The standard conversion has a new positive locking Nikkor mount on academy center. Optional mounts include Leica, Cannon, or BNC-R. All mounts are available on academy or full aperture centers and may be simply interchanged.

Accessories include a video assist, a new 28 VDC crystal motor 12 to 120 FPS with single frame mode, BNC-R follow focus, matte-box rod holder and camera case.

The price of the reflex conversion is $4,500. For further information, write or call Fries Engineering, 6350 Santa Monica Blvd., Hollywood, CA 90038. Tel. (213) 469-2984.

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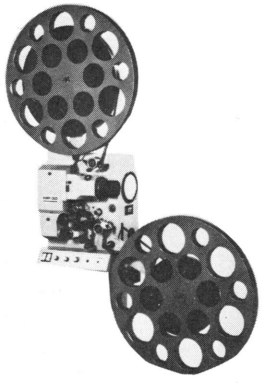

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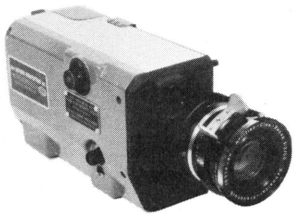
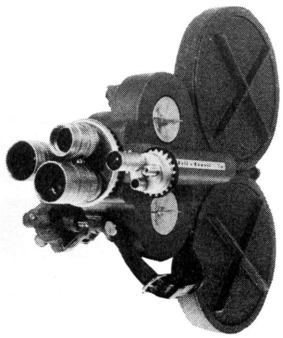


MINICAM-16
The 16mm camera that allows you to film those heretofore impossible-to-get angles and shots.



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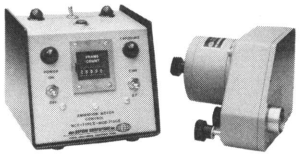

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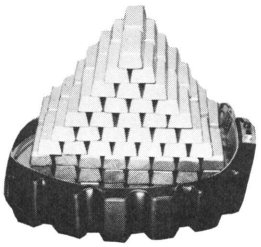

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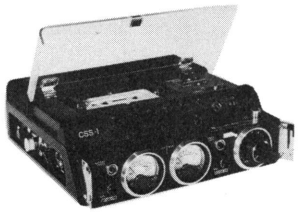

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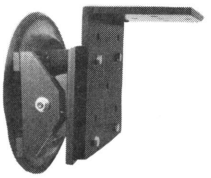

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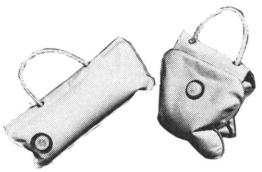

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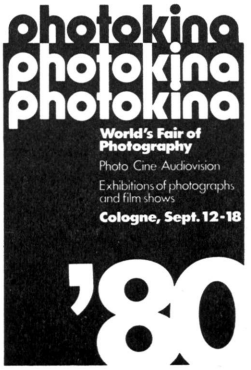

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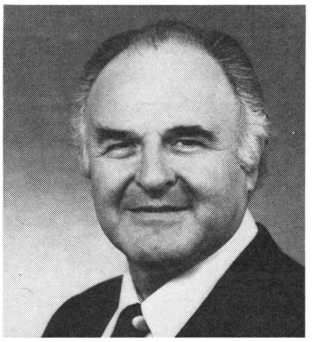

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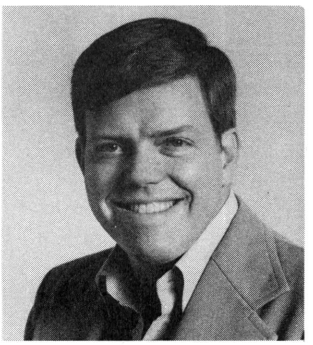

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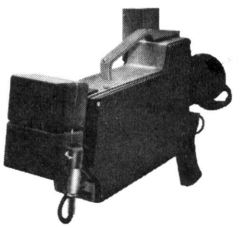
Cine 60 offers you maximum flexibility, maximum reliability. From our Fast Charge Powerbelts that can be charged in less than an hour, to our light, bright portable lighting kits. On-Board batteries for all popular ENG and EFP cameras. In-Boards for VTR's. Dememorizers to restore "new" battery performance. Car Fast Chargers for recharging from any vehicle. State-of-the-art high frequency chargers that are half the weight and size of competitive units.



Nobody else comes close to Cine 60's record of reliability. Our high value, high performance nickel-cadmiums have logged more hours, powered more cameras, shot more footage than all others combined. They've proven themselves in the only test that counts - daily use by pros.

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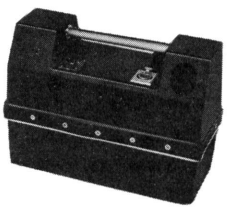
All told, Cine 60 personnel have over a hundred years of experience in working with film and video pros to give them the products they need. Nobody else knows so much about portable power or the demands you put on it. As a result, you can get whatever technical help you need with just a phone call. Chances are we've solved the problem before.



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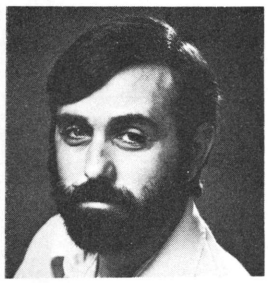
20TH ANNIVERSARY

"I want to stay ahead of my competition. That's why I bought computer animation equipment that doesn't have any."

Bill Hayes, Production Inc.



The Cinetron 1100 can do more for you than any other computer animation equipment made by anyone. Anywhere.

It lets you create stacks, strobes, tubing, slit-scans, even isometrics. And it does it all fast and easy.

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The Cinetron 1100 also gives you smoother fades and dissolves than you've ever gotten before.

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The 1100's list of capabilities just goes on and on. It even understands English. No computer programming is necessary.

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The Cinetron 1100

The Cinetron 1100 is an assistant that never makes a mistake. It'll do exactly what you tell it to and never misunderstand you.

Why do you get so much more from the Cinetron 1100 than from other computer animation equipment? Because besides designing and manufacturing computer animation equipment, Cinetron uses our equipment the same ways you do. We do animation. From cell animation and graphics to titles and mattes. And we deal with the same problems you do. So when you call Cinetron with a question, chances are, you'll speak with someone who can answer it.

There's another advantage to our using the equipment we make. It gives us the chance to work the bugs out. We test every capability of our equipment for up to two years before we even make it available to anyone else. So you get gear you can count on. And if something should go wrong, you can count on us to make it right.

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If you need any computer animation equipment, regardless of how sophisticated, call (404) 448-9463 and we'll talk. We'd suggest you check us out against our competition first, but when you find out what they offer, you'd learn we don't have any.

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THE BOOKSHELF

By GEORGE L. GEORGE

CINEMA ART AND BUSINESS

The legal side of film/TV production can often be more demanding than its artistic aspects. In SELECTED ISSUE OF MEDIA LAW, showbiz attorney Michael F. Mayer offers expert juridical advice to independent film producers on such tricky matters as copyright procedures, option agreements and distribution contracts. A useful glossary is appended (Young Filmakers, 4 Rivington St., NYC 10002; $2.50 or by mail $3.50 prepaid).

Three recent volumes of the Practicing Law Institute (810 Seventh Ave., NYC 10019) cover familiar areas of procedural contention. COUNSELING CLIENTS IN THE ENTERTAINMENT INDUSTRY 1980 discusses contract negotiations, film/TV packaging and personal management (2 vols. $25); CURRENT DEVELOPMENTS IN COPYRIGHT LAW 1980 examines changes due to the new Copyright Act ($25); EVALUATING TAX SHELTER OFFERINGS 1980 considers appraisal and depreciation of motion pictures in a tax shelter situation ($25).

Compiled under the expert guidance of supervising editor Piers Handling, FILM CANADIANA 1978-79 provides a comprehensive survey of Canada's production. It carries extensive data on over 1000 new theatrical and non-theatrical movies, offers information on producers, distributors, government agencies, unions and guilds, and other relevant aspects of the Dominion's film industry (Canadian Film Institute, 75 Albert St., Ottawa; $24.70).

A perceptive essay by Roland Gelatt, NIJINSKY—THE FILM examines the dancer's life as interpreted in the Herbert Ross movie, with an informative inside report on its production. This attractively presented large format volume is enhanced by stunning photographic blowups taken from cinematographer Douglas Slocombe's exceptionally artistic work (Ballantine $25.95/15.95).

In a highly irreverent memoir, POPISM: THE WARHOL 60'S, Andy Warhol and Pat Hackett recall those years' artistic rebellion that spread from painting to behavior to cinema, and introduced with total informality the instigators of Pop Art, their deliberately outrageous lifestyle and their strikingly unorthodox filming methods (Harcourt Brace Jovanovich $12.95).

An engagingly nostalgic volume, TO CATCH A SUNBEAM deals with a precursor of cinema—the popular magic lantern. Edited by G. A. Household and M. H. Smith, this compilation of slides, whose style is evocative of early Chaplin comedies, was used by charitable organizations of 19th century England (Michael Joseph $15.95).

★ ★ ★

MARKETING TECHNIQUES

The additional exploitation of successful films through intensive tie-in book publishing has reached a climax of sorts in the case of *Star Trek—The Motion Picture*: some 20 trade and mass market paperbacks covering many aspects of the movie have been and are still being used by Pocket Books, a division of Simon & Schuster. A similar saturation is being planned for *The Empire Strikes Back* by Ballantine Books, a subsidiary of Random House.

In the former series, the leader is THE MAKING OF STAR TREK—THE MOTION PICTURE, a spellbinding tale that narrates the progress and setbacks of the project. Written by Susan Sacket with producer Gene Roddenberry, it unreels, in fascinating detail the technical problems of the film: creation of a 23rd century environment, casting and writing difficulties, challenging optical special effects, stressing particularly the dedication and energy of all those involved ($14.95/7.95).

Other publications include STAR TREK—TMP, Gene Roddenberry's novelization of the film ($2.50); David Cohen's THE MONSTERS OF STAR TREK about space creatures ($1.75); Rafe Needleman's THE OFFICIAL STAR TREK TRIVIA BOOK with 600 questions-&-answers ($2.25); STAR TREK SPACE FLIGHT CHRONOLOGY by Stan & Fred Goldstein and Rick Sternbach covering the spaceship's voyages ($8.95) and OFFICIAL STAR TREK BLUEPRINTS with 14 plans of the Enterprise rendered by David Kemble ($6.95).

Recently issued are STAR TREK SPEAKS by Susan Sacket and Fred & Stan Goldberg, recording crew members' thoughts ($2.95); CHEKOV'S ENTERPRISE, the spaceship lieutenant's story by Walter Koenig ($1.95) and STAR TREK: THE PHOTOSTORY, the spaceship's adventures retold in full color ($2.95).

In addition, many "non-books" are available to Star Trek fans, including pop-up, punch-out, peel-off, make-a-game, and make-your-own-costume publications, plus wall and desk calendars. All are priced from $4.95 to $10.95.

★ ★ ★

NAMES IN THE NEWS

An intelligent appraisal of an actor that "only the public really liked," JOHN WAYNE by Allen Eyles explores Wayne's identification with the idealized picture of the American male. Perceptive and detailed, the book knowledgeably examines his movies recapped in a lengthy filmography (Barnes $19.95).

In his second book of reminiscences, FRONT AND CENTER, John Houseman covers the years from World War II and his work for the Voice of America to the mid-fifties when he was a respected Broadway and Hollywood producer-director. Told in straightforward and modest fashion, this memoir highlights a significant contribution to stage and screen (Simon & Schuster $15).

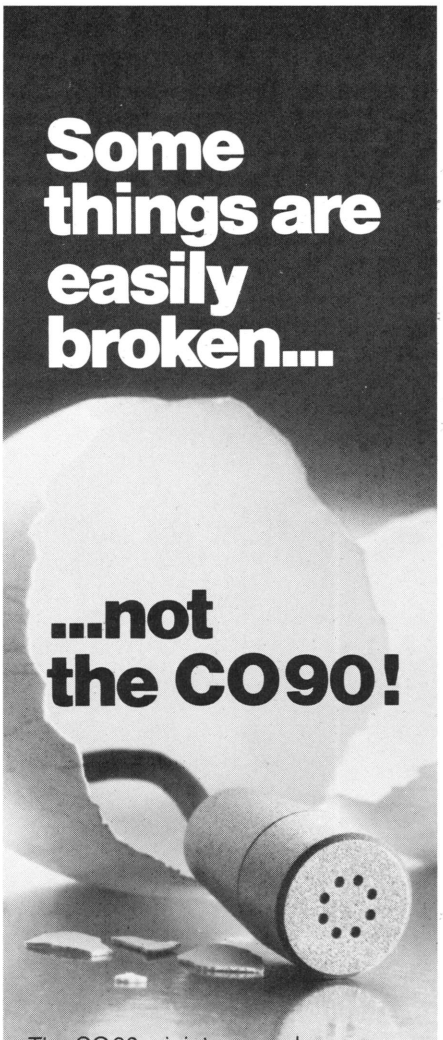
Three performers are the subjects of informal biographies. In SHATNER, the hero of *Star Trek* presents an intimate and honest view of his own life, co-written with Sondra Marshak and Myrna Culbreath (Ace $2.25). In DINAH!, Bruce Cassidy follows the entertainer's career from radio to films and to her current television show (Franklin Watts $10.95). In KILGALLEN, Lee Israel pens a lively if unsparing appraisal of the radio/TV personality and hints at the mysterious circumstances of her death as possibly linked to JFK's assassination (Delacorte $12.95).

Noted art and film critic, Regina Cornwell, in SNOW SEEN, offers a sensitive in-depth study of Michael Snow, a Canadian filmmaker with a distinctive avant-garde style. His innovative contribution involves a highly personal approach to cinema's basic elements—camera movement, image-to-sound relationship and visual effects that induce psychological illusions in the viewer's mind (N.Z. Zoetrope $19.95).

An enterprising high level public relations man, Henry C. Rogers "confesses" (his word) in WALKING THE TIGHTROPE to his often dubious activities on behalf of such clients as Rita Hayworth, Paul Newman, Doris Day, as well as many non-showbiz figures. An entertaining memoir, it casts a sharp light on a generally unpublicized facet of the celebrity-making industry (Morrow $10.95). ■

Correction

The price for THE TECHNIQUE OF TELEVISION PRODUCTION (Focal Press) by Gerald Millerson, was erroneously stated in this column in the July, 1980 issue as being $29.95. The correct price of the book is $17.95.



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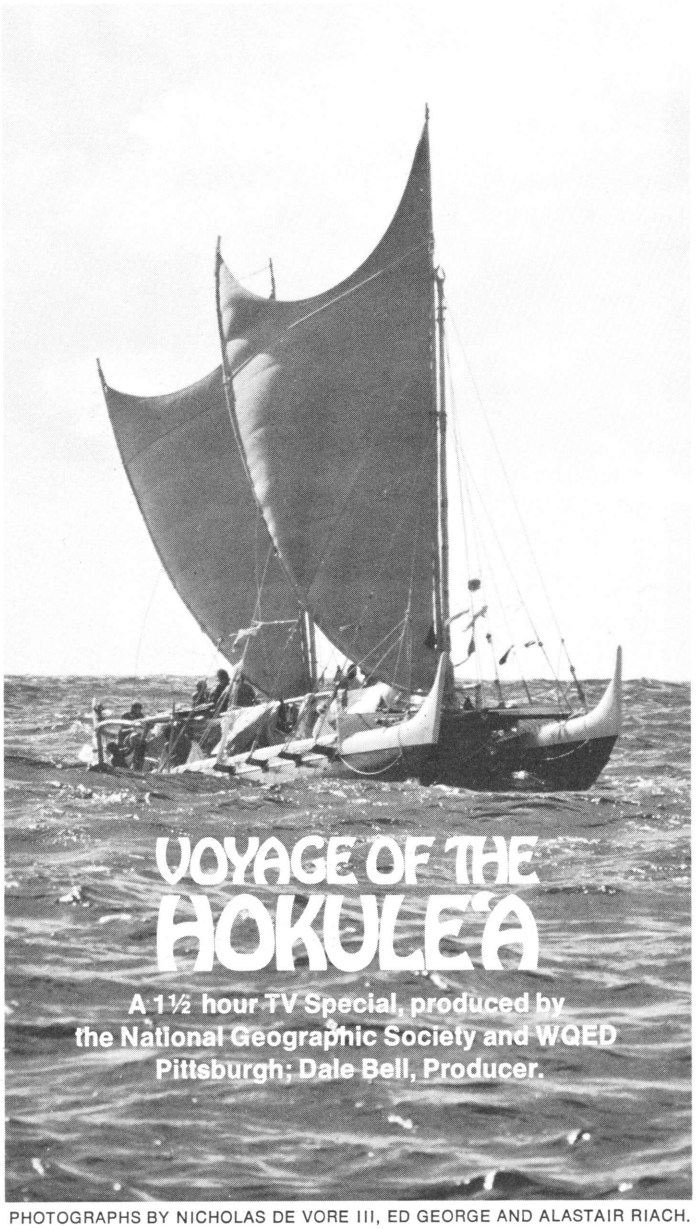

VOYAGE OF THE
HOKULE'A
A 1½ hour TV Special, produced by
the National Geographic Society and WQED
Pittsburgh; Dale Bell, Producer.

PHOTOGRAPHS BY NICHOLAS DE VORE III, ED GEORGE AND ALASTAIR RIACH.

3,000 miles across the Pacific in a sail canoe. Drenched every day, even sleeping wet. Humidity. Salt. One-man film crew, room for one sync-sound camera: The Arriflex 16SR.

Cinematographer Norris Brock wore a vest and harness that let him operate the camera, recorder, mike, battery, wireless receiver and mixer, and *still* have both hands free to reload or to prevent himself from falling overboard. The camera wore a wet suit.

Without charts or navigation instruments, could the early Polynesians have sailed deliberately between Tahiti and Hawaii?

Ancestors

That was the question this voyage set out to answer. If successful, it would help to prove that 15,000,000 square miles of the South Pacific were methodically settled by the islanders, centuries before Columbus crossed the Atlantic.

No staging

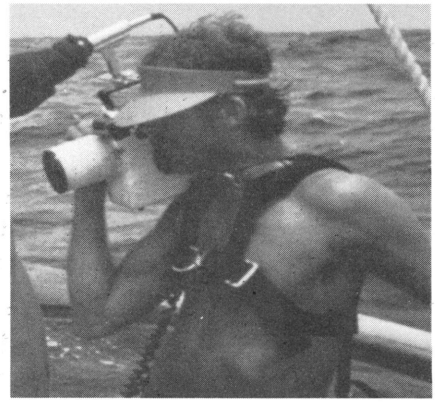
Hokule'a was a reproduction of an early Polynesian voyage canoe. For 34 days, Norris Brock's job was to shoot on board. Filming was *not* the purpose of the voyage, so he had to keep out of the way. Nothing could be staged.

Cramped

Space was in short supply. Mr. Brock had to sleep and store his equipment in a space 5ft x 3ft x 4½ft. The upper (sleeping) level was soaking wet. The lower (storage) level leaked badly. Both were hot and humid.

Wet

Except for some sunny periods in the doldrums, everyone on board was permanently soaked by spray, waves, and rain. From the first day out, Mr. Brock reloaded the Arriflex's magazines with wet hands, inside a wet changing bag.



Shooting one-handed and keeping out of crew's way. Note custom-made harness.

Negative

"Having used 7247 negative for the pre-voyage sequences, we wanted to use it at sea, too," says Mr. Brock. "Negative meant double-system; and we originally planned on a three-man film crew."

Crowded and laden canoe meant sync-sound filming had to be done by one man.

One man

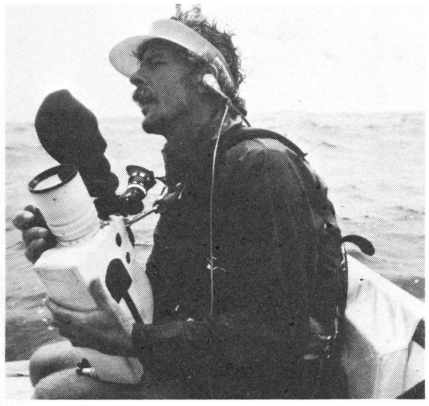
"But after a trial sail, during which we nearly sank, we were told we must lighten the load. *One* man would have to shoot and record the sound, with only one sync camera on board."

Stars only

"There would be a radio-equipped escort boat following us at some distance, to plot with instruments the course our navigator set by the stars. But we had no guarantee of access to it."

No radio

"As it turned out," says Mr. Brock, "*Hokule'a's* walkie-talkies were done in by the physical battering and the salt water, so we sometimes lost contact for several days. I had a 50ft load gun camera in an underwater housing. And I had four Nagra SNs. And *one* Arriflex 16SR."



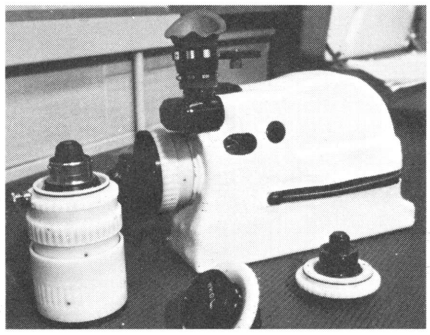
Norris Brock, wet. Note mike mounted above lens.

Gamble

"For this job, WQED had looked at every camera on the market. The 16SR was a new and, for us, untried camera. But we figured that the cameras we *did* know would not hold up. We decided to bet on Arriflex's reputation for reliability."

Wet suit

"The National Geographic Society made an amazing PVC wet suit for the camera, with a watertight zipper so I could change magazines. The finder and handgrip with its on-off switch we left uncovered."



Arriflex 16SR in custom made PVC wet-suit, lenses in solid nylon housings.

Nylon blocks

"I chose two lenses," says Mr. Brock, "The Zeiss 10-100mm zoom and the Angenieux 5.9mm. National Geographic machined housings for them from solid blocks of nylon, with waterproof O ring seals."

Symmetrical finder let Mr. Brock shoot at any angle on either side of camera.

Harness

"National Geographic also made me a vest with pouches for recorder, camera battery, wireless receiver, audio control unit – and a lifetime supply of lens tissue! And I had a harness made for the camera at a hang-glider shop in California."

Knocks

"Once at sea, I didn't dare put the camera down on deck, so I had to wear it (with the harness) for hours and days on end. I fell down countless times. Having both hands free let me save myself and the camera from the worst knocks."

Wiping off salt spray every few minutes. Throw-away battery in pouch.

Quick

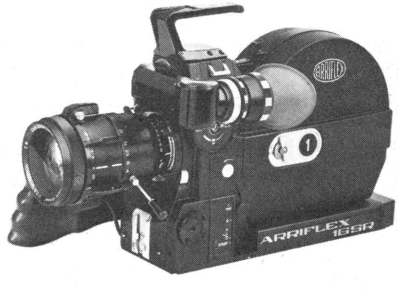
"The Arri's built-in meter really saved the day, too," says Mr. Brock. "The action was unpredictable. I couldn't walk around taking readings. I'd just start shooting and set the f/stop simultaneously."

Corrosion

"After two weeks at sea, the rotating finder froze up from salt-water corrosion. I oiled it and coated it with silicon... worked perfectly. Other than that, *no camera problems*."

Delivered

"I shot about 12,000 feet on the voyage," says Mr. Brock. "We had all our eggs in one basket with that camera – and it delivered."



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CINEMA WORKSHOP

By ANTON WILSON

THE GREAT F-STOP MYSTERY

An interesting predicament occurred several weeks ago. A cinematographer called out a stop of T/9. The operator asked if he meant halfway between T/8 and T/11. The Director of Photography confirmed that the T/9 was indeed meant to be the half stop. The first assistant then added his opinion that the correct designation for the half stop between T/8 and T/11 should be T/9.5. Immediately a controversy arose and, at the first available moment, there was a flurry of activity. Each member of the camera department went for his own personal reference, be it a cinematographer's manual, cameraman's lens chart, cinema workbook or a handi-dandi f-stop wheel. Lo and behold, these trusted sources did not agree with one another. Moreover, many of the values presented did not fit the logical progression one would intuitively expect. This was massive trauma, as lifelong faiths stood to be shattered.

With so much at stake, I humbly volunteered to engage this paradoxical mystery.

I must admit that I had never given the matter much thought. I had always assumed that "T-stop" engravings were based on divine origin, and the precise designations for fractions of a stop never concerned me, as I usually call out stops as "T/8 and 1/3" or "T/4 and 1/2", etc. However, this particular controversy intrigued me. Something inside me said that there was more to this than met the eye. There were two major clues staring right at me. The accepted sources did not agree and the fractional intervals were not spaced evenly. I knew immediately that there was only one way to clear up this paradox—the computer.

Starting with the basic formula for f-stops, the computer derived the complete set of f-stops from f/0.71 to f/32, including ¼, 1/3, and ½ stops. The results gave me quite a jolt, and for an instant I relived the childhood trauma of realizing that Santa Claus was a fake.

Would you believe that T/5.6 is really T/5.7 (5.6569), that T/11 is really T/23 (22.6274). No wonder the 1/3 and ½ stops seemed unevenly spaced; the f-stops themselves were inaccurate. I had undoubtedly stumbled onto a clever cover-up of massive proportions. But before notifying the *Washington Post* and Ralph Nader, I decided to re-check my calculations and research the situation more thoroughly.

My calculations proved correct and accurate and the numbers that appear in Chart 1 were actually derived by Nobel laureate, economist and mathematician Milton Friedman on his Hewlett-Packard micro computer. However, the massive cover-up plot quickly dematerialized as these same figures appear in the gov-

Continued on Page 950

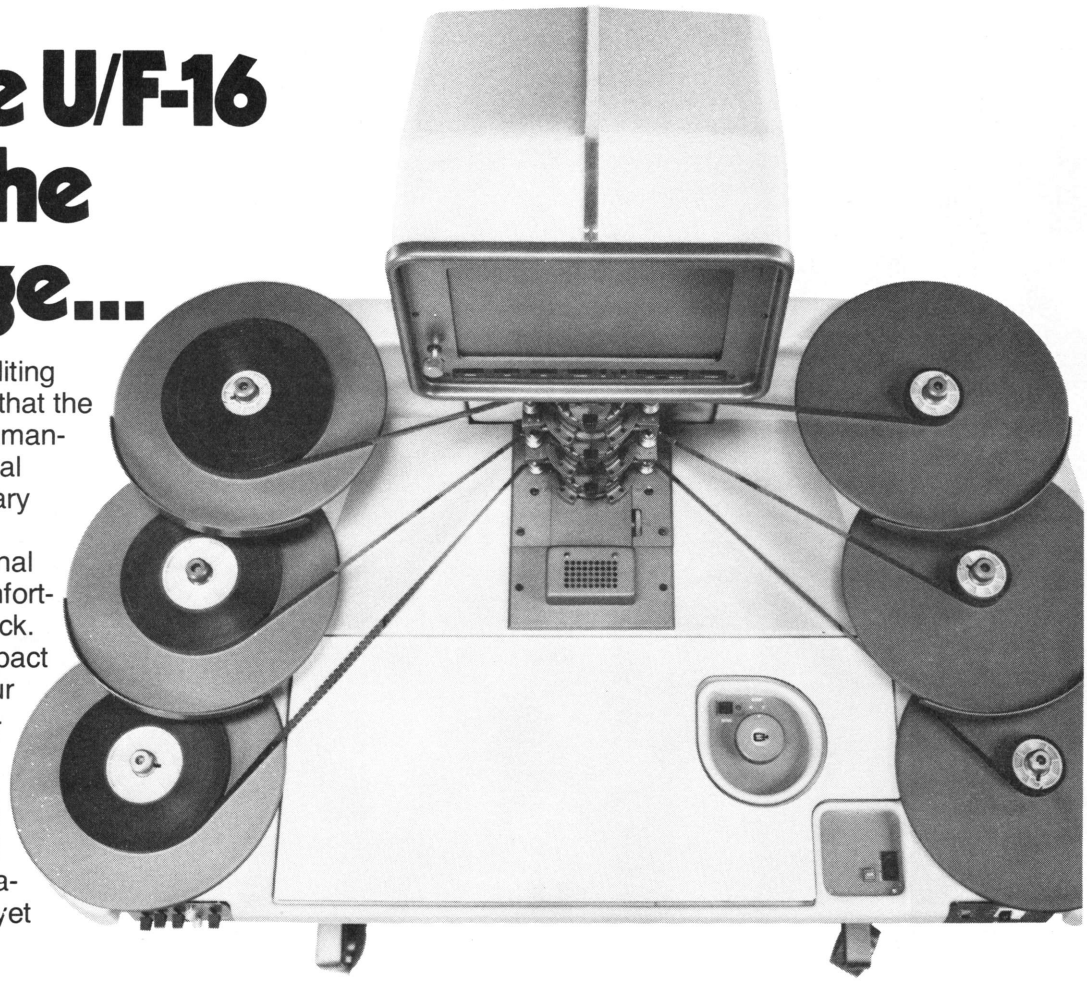
CHART I—f-stops, 1/3-stops and 1/2-stops derived to four decimal places by computer. The full stops are indicated as shaded numbers.

f-stops & 1/3 stops ↓	1/2 stops ↓
32.0000	
28.5088	
	26.9087
25.3984	
22.6274	
20.1587	
	19.0273
17.9594	
16.0000	
14.2544	
	13.4543
12.6992	
11.3137	
10.0794	
	9.5137
8.9797	
8.0000	
7.1272	
	6.7272
6.3496	
5.6569	
5.0397	
	4.7568
4.4898	
4.0000	
3.5636	
	3.3636
3.1748	
2.8284	
2.5198	
	2.3784
2.2449	
2.0000	
1.7818	
	1.6818
1.5874	
1.4142	
1.2599	
	1.1892
1.1225	
1.0000	
0.8909	
	0.8409
0.7937	
0.7071	

CHART II—f-stops, 1/3-stops and 1/2-stops from CHART I rounded off to one decimal place above f/1.4 and to integers above f/16, as per ANSI.

f-stops & 1/3 stops ↓	1/2 stops ↓
32	
28-(28.5)	
	27
25	
23	
20	
	19
18	
16	
14.3	
	13.5-(13.45)
12.7	
11.3	
10.1	
	9.5
9.0	
8.0	
7.1	
	6.7
6.3	
5.66	
5.00	
	4.8-(4.76)
4.5	
4.0	
3.6	
	3.4
3.2	
2.8	
2.5	
	2.4
2.2-(2.25)	
2.0	
1.8	
	1.7
1.6	
1.4	
1.26	
	1.2
1.12	
1.0	
0.89	
	0.84
0.79	
0.71	

Our unique U/F-16 gives you the cutting edge...



Sit down and try our new 16mm editing console. You will realize, instantly, that the U/F-16* has been designed and human-engineered with the *editor's* physical comfort and requirements as primary objectives.

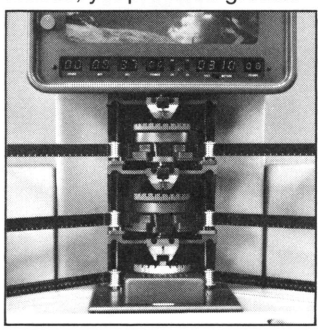
The U/F-16 is extremely functional and uncluttered in design. It is comfortable to work with. Easy on your back. Safe and gentle with your film. Compact enough to work with and store in your home. Lightweight enough to transport in a passenger car when necessary.

Best of all, our U/F-16 *combines* all the advantages of sophisticated flatbeds with the simplicity and reliability of upright editing machines — yet it is reasonably priced!

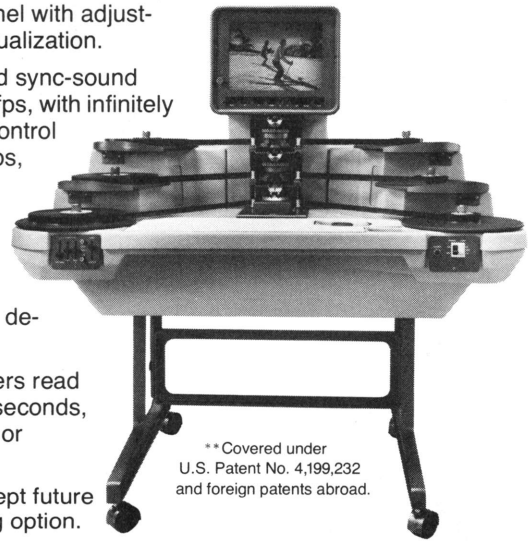
*U.S. and foreign patents pending.

Outstanding Features:

- Basic console design features six terraced horizontal feed and take-up plates accepting one 16mm picture track and two 16mm magnetic sound tracks. 1200 ft. capacity on all plates.
- Unique terraced arrangement makes the U/F-16 far more compact than conventional flatbeds, yet provides greater work area for the editor and his tools. All plates and controls are readily accessible to the editor without stretching.



- Like a synchronizer turned up on its end, the U/F-16 coaxial drive mechanism permits in-line vertical arrangement of all sprocket wheel assemblies for convenient marking, synching, and cutting of film. Permits instant coupling, uncoupling, and locking on any track by means of a simple lever.
- Single sprocket drive for simple threading and safer handling of each track.
- Continuous, high-quality flickerless projection on a bright screen. Unique 24-facet hollow polygon system** is placed away from all heat sources and ambient room contaminants. Rarely needs cleaning.
- Simple belt drive system eliminates need for torque motors. Provides gentler, safer start/stop.
- Manual or electrical "inching" capability.
- Simple threading path permits hand-feeding short lengths of film without use of take-up plates.
- Excellent sound quality. Conveniently located playback heads require no additional threading.
- Audio mixing panel with adjustable high/low equalization.
- Crystal-controlled sync-sound speeds of 24/25 fps, with infinitely variable speed control from 0.5 to 192 fps, forward and reverse. Push button on/off at sync-sound speeds stops machine right on desired frame.



- Electronic counters read hours, minutes, seconds, frames, and feet or decimeters.
- Designed to accept future time-base coding option.

**Covered under U.S. Patent No. 4,199,232 and foreign patents abroad.

For further information, please contact:

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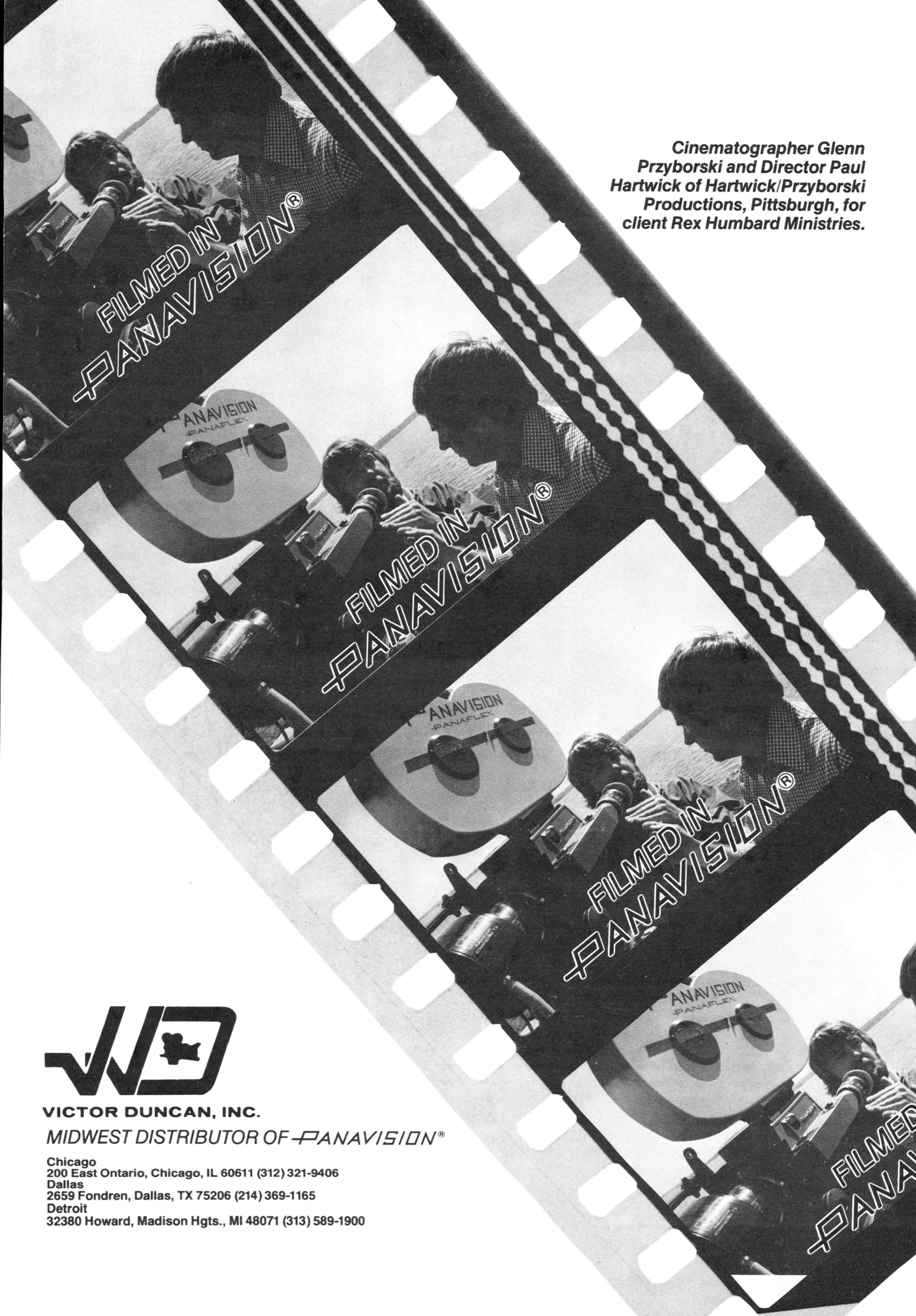

Cinematographer Glenn Przyborski and Director Paul Hartwick of Hartwick/Przyborski Productions, Pittsburgh, for client Rex Humbard Ministries.

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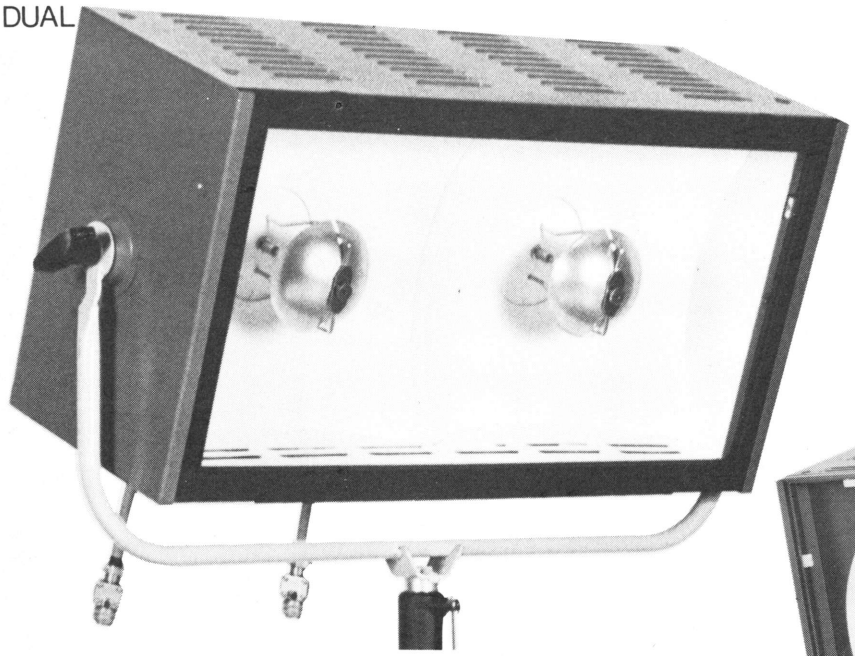
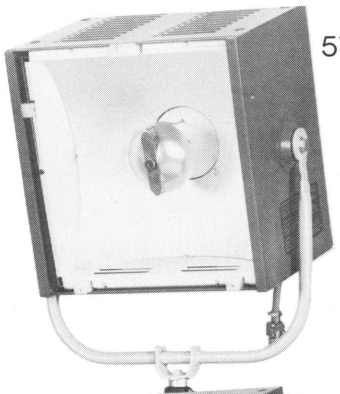
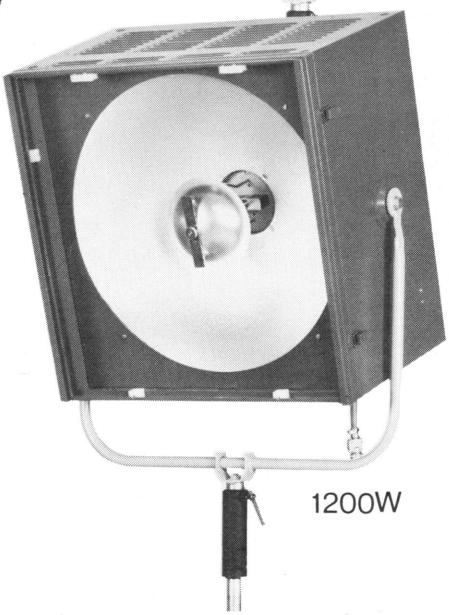
575W DUAL



575W





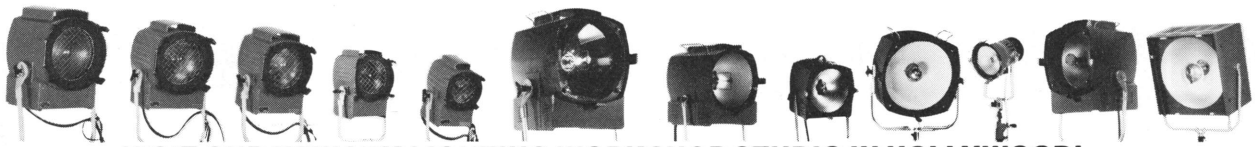
1200W

You asked for them — here they are: marvelously versatile, Soft-Daylight LTM's . . . 200W, 575W, 1200W . . . duals and singles . . . designed and solidly built by the world leader in motion picture and TV lighting for the most energy-efficient performance. The Dual 575W, for example, is equivalent to a 4K incandescent soft light . . . 21,000 lumens of soft daylight!

See and try them in our LTM exhibit at the Photokina and SMPTE shows or at our Hollywood and Paris studios.

versatile new HMI lights ... LTM SOFT-D-BOXES!

Now the industry's widest range of HMI lights is greater than ever!



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CHEOPS
2600 BC

AATON
1980 AD

Georges Hofer, Cameraman (Swiss Aäton agent)

The film medium will not have the stability over centuries that Cheops has had...

But, in the last 50 years, the essential characteristics of 16 and 35 mm film standards have not changed.

Contrary to video, film owes its uniqueness to the fact that it is visible, comprehensible to the naked eye without the intermediary of decoding equipment : it is a «natural» medium. Film can be cut, intercut, recut, and edited by hand. This inherent «transparence» is at the root of **film's universality,** and of course of its non-obsolescence.

Because film is by definition transparent, it is logical then that any improvement to the film system should retain the **natural readability** of the medium. So when it came to adding a time address to the film, Aäton chose what filmmakers interpret most easily : clear **letters and figures.**

In 1968, Jean-Pierre Beauviala, a young professor of electronics (and later founder of Aäton) took out patents on a system that would allow **clear arabic figures** to be exposed between perforations as the film passed over the gate in a 16 mm camera. The camera would be instructed by a master clock, so that each second a complete address including time indication to the second would appear on the film edge. The same master clock would insert the address and time indication into a standard Nagra III. Thenceforth, every second of film and tape would contain a complete set of information, and could be matched together with absolute accuracy.

The essential point was to make a system as clear and simple as possible : the intended user was the **independent cameraman.** The choice of any coded system was out : too expensive to buy decoding equipment, modify editing tables, etc. The choice of an alpha-numeric system was natural. The user had to be able to «**read**» **with the naked eye** without depending on complex and expensive machines.

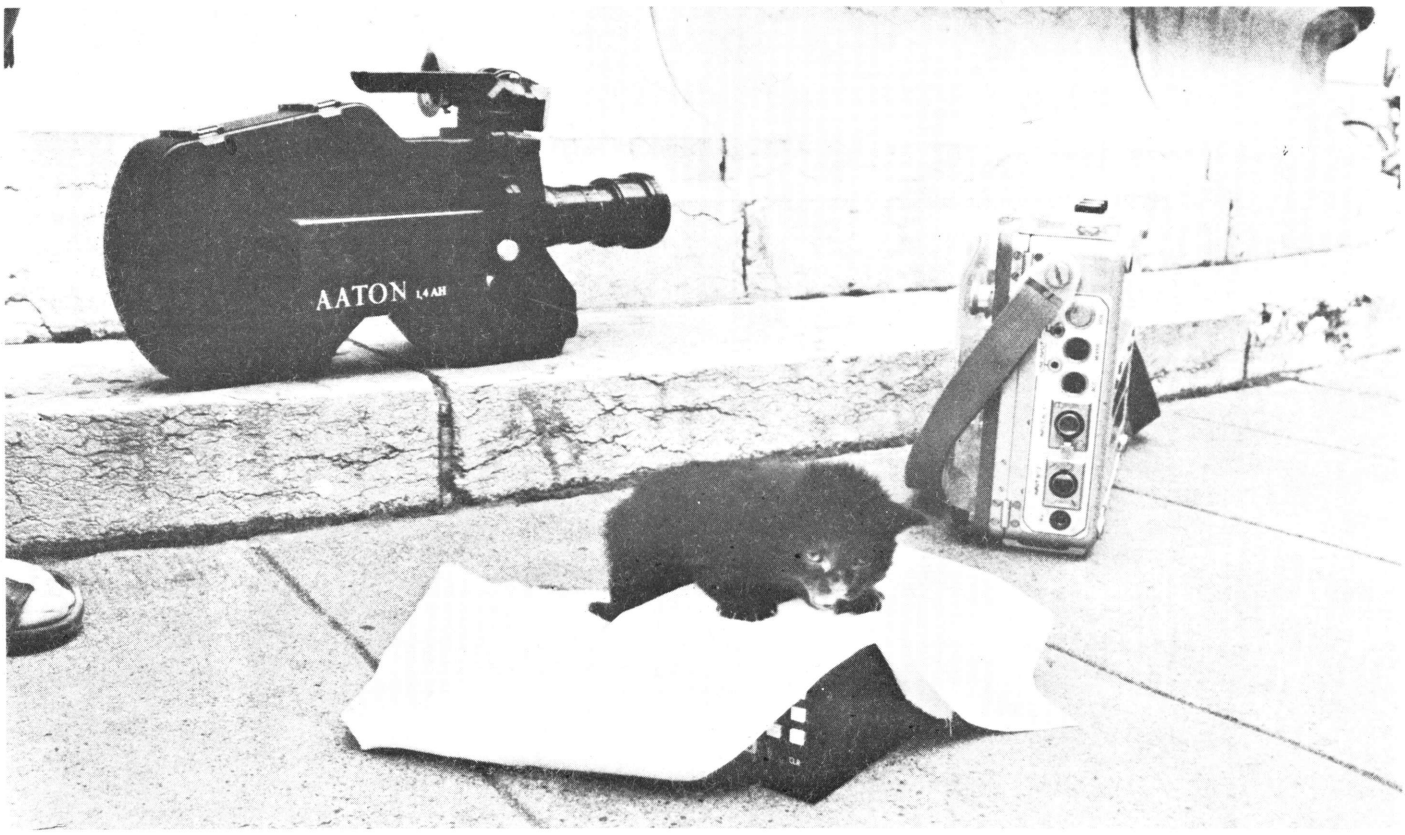
cont'd.

In 1977, **Aäton** elaborated on the basic ideas of J-P Beauviala's clear figure invention (intended to keep to a minimum the modifications to existing sound recorders and editing tables) and presented in London a working system of Clear Time Recording, based on extensive use of **microprocessor technology.** This was a first in the industry.

The Aäton LTR camera projects figures and letters onto the edge of the 16 mm film during exposure. Words and numbers are printed in white onto the perforated 16 mm audio tape during transfer.

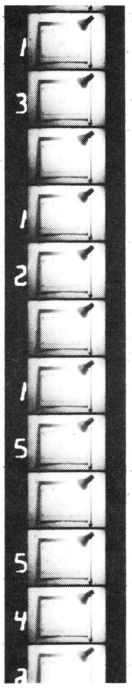
In 1980, Aäton is adding another improvement to the system — words and numbers on paper. paper ? Yes, paper.

Aäton introduces the Third Machine



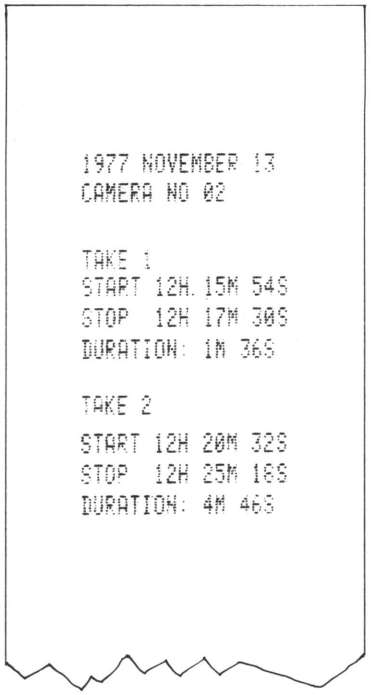
Camera, recorder, & The Third Machine **(Scribe)**; the kitten will be at Photokina to unveil Scribe to the public.

Film, tape and paper : the date was November 13, 1977, time 12:15 54 and after.



1
camera
time on film

2
recorder
time on tape



3
scribe
time on paper

Camera
- machine to expose pictures on film
- wide range : Eclair, Arri, Cinema Products, Aäton

Recorder
- machine to record sound on tape
- professional models : Nagra 4, IS, SN, Stellavox SP8

Scribe
- machine to transcribe shooting data on paper
- **The Third Machine,** one of a kind : an Aäton invention.

The **Scribe** inserts a complete time address into the Aäton LTR cameras and Nagra or Stellavox daily; at the end of each filming day, it retrieves all the information concerning the day's takes. It re-arranges this information in any one of a number of ways : for example strict chronological order of the various cameras' shooting times, or separate listing of takes to be processed or set aside, etc. The **Scribe** then inserts this information into any commercially available printer.

With this Aäton innovation, the old camera + recorder duo will find it needs a new companion : the Scribe, providing ***daily transcripts.***

AATON

Alan Gordon Ent.
Behrend's
Camera Mart
Victor Duncan
Zellan Ent.

Aäton Cameras Inc.
1697 Broadway
New York NY 10019
USA
Tél. (212) 541.8181

Aäton S.A.
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MNC-71CP

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Denver has the best, most centralized and direct shipping service available. Which means wherever you are, renting or buying film or video equipment from Film/Video Equipment Service Company in Denver saves transit time, shipping costs and the worry and expense of delayed production schedules due to carrier transfer error.

Film/Video Equipment Service Company is an exclusive Mountain States dealer for all Cinema Products film and video equipment and accessories. CP-16R and the state-of-the-art GSMO film cameras. MNC-71CP ENG/EFP video cameras. And recorders—the ¾ inch JVC 440LU or one-inch portables. All you need for single or multi-camera shoots—the digital CP coaxial control system, HMI lights, Steadicam™. Plus the CP U/F-16 Upright Flatbed Editing Console. We have it all, for sale or for rent.

Plus we service what we sell, in our shop or on location. Factory trained and authorized, with over a decade of experience. We can train you on the Steadicam™ in Denver or on location. Or we have experienced operators available.

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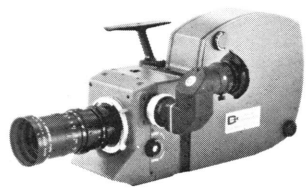
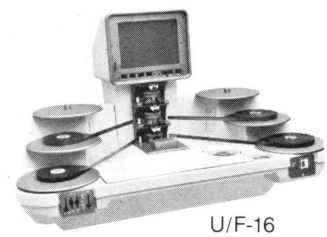
CP-16R



GSMO



U/F-16

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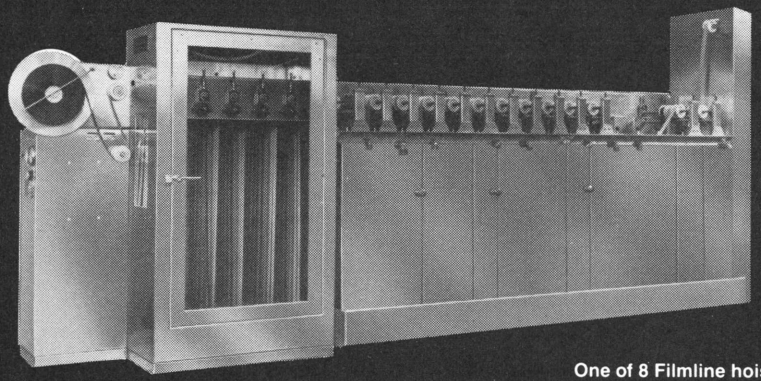
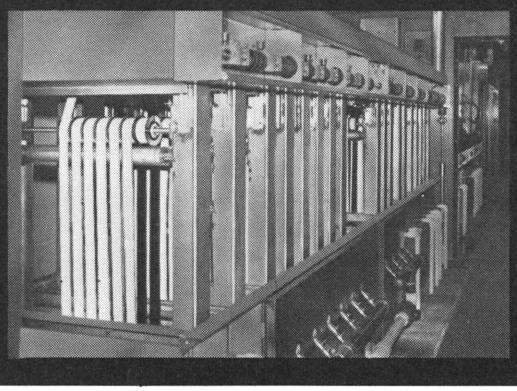
MICRODEMAND
FILM TRANSPORT SYSTEM

FULLY PROTECTED BY U.S. & FOREIGN PATENTS



Typical medium size Filmline processor available in speeds from 7-200, F.P.M.



One of 8 Filmline hoist-type processors installed at Technicolor, Hollywood, California running in excess of 400 F.P.M. (Hoist shown partially raised.)

Micro-Demand is a patented exclusively different concept in demand drive film transport systems.

Micro-Demand is a dynamically tension-controlled friction film transport system that operates effectively at minimum tension and with complete reliability. When used with Filmline Feather-Touch film spool "tires" it transports 35mm, 16mm and single strand 8mm film interchangeably and without adjustments even when these films are spliced back-to-back.

Once optimum tensions are set there is no need for further adjustments, yet the design allows easy and rapid, dynamic adjustment of film tension while the machine is running.

Micro-Demand has a broad band of self-compensation, is of functional construction and requires minimum maintenance.

There are no fragile, plastic spring bushings, no wobble rollers. No elaborate articulations of any type. Just sound engineering and the highest quality materials and workmanship.

No other competitive processor or film transport system commercially available has ever achieved the operational speeds and proven reliability of Filmline Micro-Demand Processors.

SIGNIFICANT MICRO-DEMAND FEATURES:

Versatility	Any speed, any process.
Reliability	Rugged construction, quality materials and sound engineering. Always ready when you are!
Flexibility	Any format 35mm, 35/32mm (1-3), 35/32mm (1-4), 35mm 5R S8, 16mm — 70MM-105MM etc.
Dependability	Can stand the gaff of long, continuous, top speed runs with "Zero-down-time."
Credibility	Ask the labs who own them. Most of them own not one but several.
Maintenance	Exclusive Maintenance Monitor tells when and where the machine needs attention. Significant savings assured.
Performance	Every Filmline machine is backed by a superb performance record compiled in over 25 years of continuous service to the industry. Twenty five years in the forefront of processing machine design and innovation.

- ☐ Push-Button operation, and reliability allows operator to perform other functions while the machine is running!
- ☐ Automatic compensation for elongation and contraction of film during processing cycle.
- ☐ Virtually eliminates all film breakage, scratches and static marks.
- ☐ All film spools use standard bearings or bushings.
- ☐ Entire upper film shaft/roller assemblies easily removed. No tools needed.
- ☐ Stainless steel construction used throughout.
- ☐ Proper operation can be determined at a glance, while machine is running.
- ☐ Submerged developer racks.
- ☐ Pumps for recirculation and agitation of all required systems.
- ☐ Professional spray bars.
- ☐ In-line filters on all required systems.
- ☐ Professional air and wiper squeegees.
- ☐ Temp-Guard Temperature Control System. Thermistor sensing and transistorized controller.
- ☐ Film-Guard dry box with dual heat input and dial thermometer.
- ☐ Individual switches for all control functions.

"Filmline Engineering and Consulting Services for Complete Laboratories are Available Worldwide."

Filmline Continuous Film Processors are used throughout the world by: Deluxe-General, Technicolor, Inc., Capital Film Labs, Byron Motion Pictures, TVC Labs., Movielab, Radiant Laboratories, Guffanti Labs, Precision Film Labs, Bellevue-Pathe, ABC, CBS, NBC Network TV, NASA, General Motors, RCA, IBM, AEC, Universal Labs, Hong Kong, Kay Laboratories, London ... and thousands of others.

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Do you want your short film to play in theatres across the USA?

Announcing:
The National Endowment for the Arts Short Film Showcase, Round IV, a program for the distribution of short films to commercial theaters, administered by the Foundation for Independent Video and Film, Inc. (FIVF)

Award:
Each filmmaker whose work is selected will receive an honorarium of $3,000 and will supervise the 35mm blow-up of his or her film.

Films have included George Griffin's *Viewmaster,* Frank Mouris' *Frank Film,* Eli Noyes' *Clay,* Sara Petty's *Furies,* James Whitney's *Lapis.*

Jurors invited to select films have included Mirra Bank, Francis Coppola, Molly Haskell, Henry Plitt, Michael Schultz, Martin Scorsese, Sam Spiegel, Ted Timreck.

You Are Eligible For This Program of High Quality Short Films if:

- you are an American citizen or permanent resident
- your film runs 10 minutes or less including title and end credits
- you own the U.S. theatrical rights and have cleared all performance rights
- your film is not already in 35mm theatrical distribution
- your film will qualify for an MPAA rating of G or PG

Entry Instructions:
Each film submitted for entry must be

- mounted on a reel
- shipped in a strapped regulation hardboard film case with corner clamps
- marked with film title and name of filmmaker on reel, leader, and shipping case
- sent **prepaid** and **insured** (by entrant) and must contain a **return mailing label with postage affixed** (stamps only) to cover mailing costs plus insurance (specify class of mail desired) from New York.

No improperly packaged films will be accepted.

Films are submitted at owner's risk. Receipt will *only* be acknowledged if entrant encloses either U.S. Postal Form #3811 (Return Receipt) (insured or registered en route to New York) or a self-addressed stamped envelope or card.

Send Films to:
Short Film Showcase % FIVF
625 Broadway, 9th Floor
New York, NY 10012

Entry Deadline:
November 1, 1980 (delivered at FIVF)

Notification:
Showcase winners will be notified and all other films will be returned by February 28, 1981.

16mm & 35mm ONLY

Entry Form: (Enclose With Film)
I have read and accept the above conditions and state that I am the principal filmmaker for the film entered in my name, that I have all rights of publication to this film and that the content of the film does not infringe upon the rights of anyone.

(sign here) _____

Name _____

Address _____

City/State _____ Phone _____

Title of Film _____

Running time _____ Color ☐ B/W ☐ Date completed _____

I learned about SFS through _____

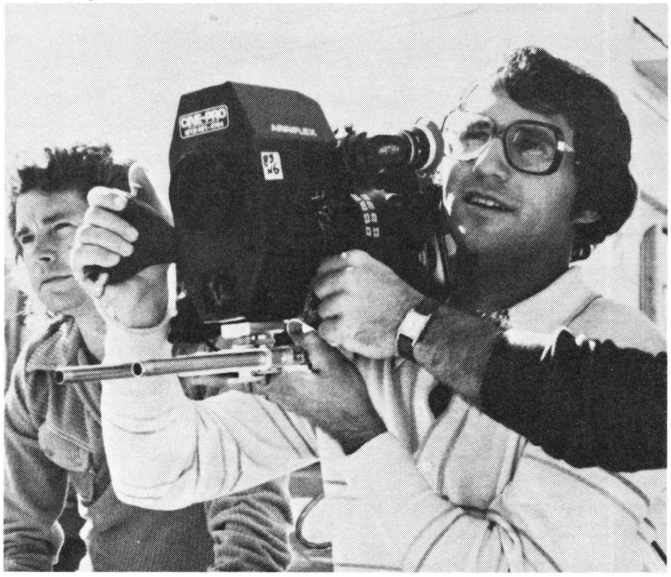
FIVF is a national service organization dedicated to the growth of independent video and film.

CINE-PRO ...first again with the newest and best!

NEW ARRIFLEX IMAGE STABILIZER

Practically eliminates the effects of vibration when filming from cars, boats, airplanes, helicopters, etc.

L-R: Ed Barger, Tom Denove



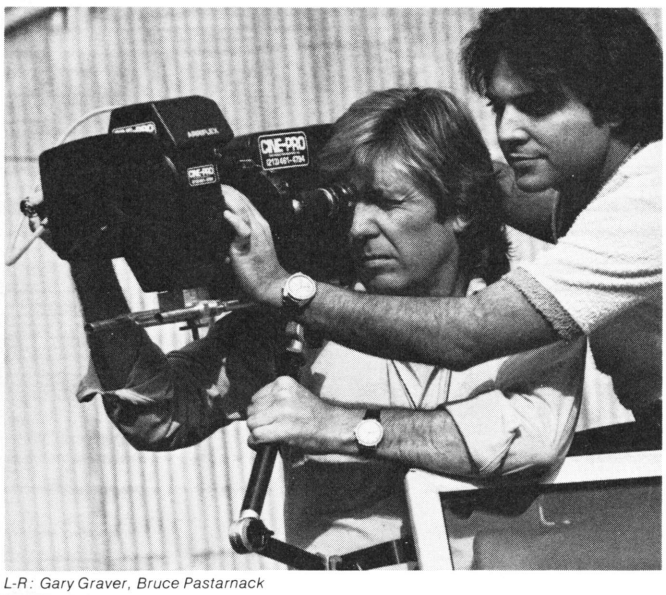
TOM DENOVE

DIRECTOR OF PHOTOGRAPHY, "WE'RE ALL CRAZY NOW"

"I felt that the Arri Image Stabilizer could be a big help in some scenes of 'We're All Crazy Now' . . . and I wasn't at all surprised to discover that Carl Porcello had the first and only one on the West Coast. The lightweight unit was quick to set up on our 35BL and very easy to use. It performed flawlessly, not only eliminating the effects of vibration, but also hiding substantial shakes and jolts. There was no 'floating' when a moving shot ended in a static set-up. I'm sure the Arri Stabilizer is going to become a standard tool for the industry."

"WE'RE ALL CRAZY NOW"
Z PRODUCTIONS

Executive Producer	Robert Zane
Producers	Harry Landers and Mike Lane
Director	Bernard Girard
Production Manager	Ron Mitchell
Director of Photography	Tom Denove
Camera Operator	Ed Barger
First Assistant Cameraman	Tim Wawrzeniak
Gaffer	Irv Katz
Key Grip	Don Robinson



L-R: Gary Graver, Bruce Pastarnack

GARY GRAVER

DIRECTOR OF PHOTOGRAPHY, "THE ATTIC"

"I used the Arriflex Image Stabilizer on some especially rough driving scenes in filming 'The Attic' and found that it does everything claimed for it. It gave me good, steady shots, with no visible jolts or vibration and no slightest sacrifice of film quality. There's no light loss or image degradation through this new Arri system, and its use doesn't restrict normal camera work. It's a fine piece of equipment that I expect to use often from now on."

"THE ATTIC"
FORUM PRODUCTIONS, LTD.
IN ASSOCIATION WITH THE ATTIC ASSOCIATES

Executive Producers	Mel Edelstein and Robert H. Becker
Producers	Raymond Dryden and Phillip Randall
Co-Producers	Mac Greenberg and Martin Wiviott
Director	George Edwards
Production Manager	Nicole Scott
Director of Photography	Gary Graver
Camera Operator	R. Michael Stringer
First Assistant Cameraman	Bruce Pastarnack
Gaffer	Ray Bilger
Key Grip	Phil Sloan

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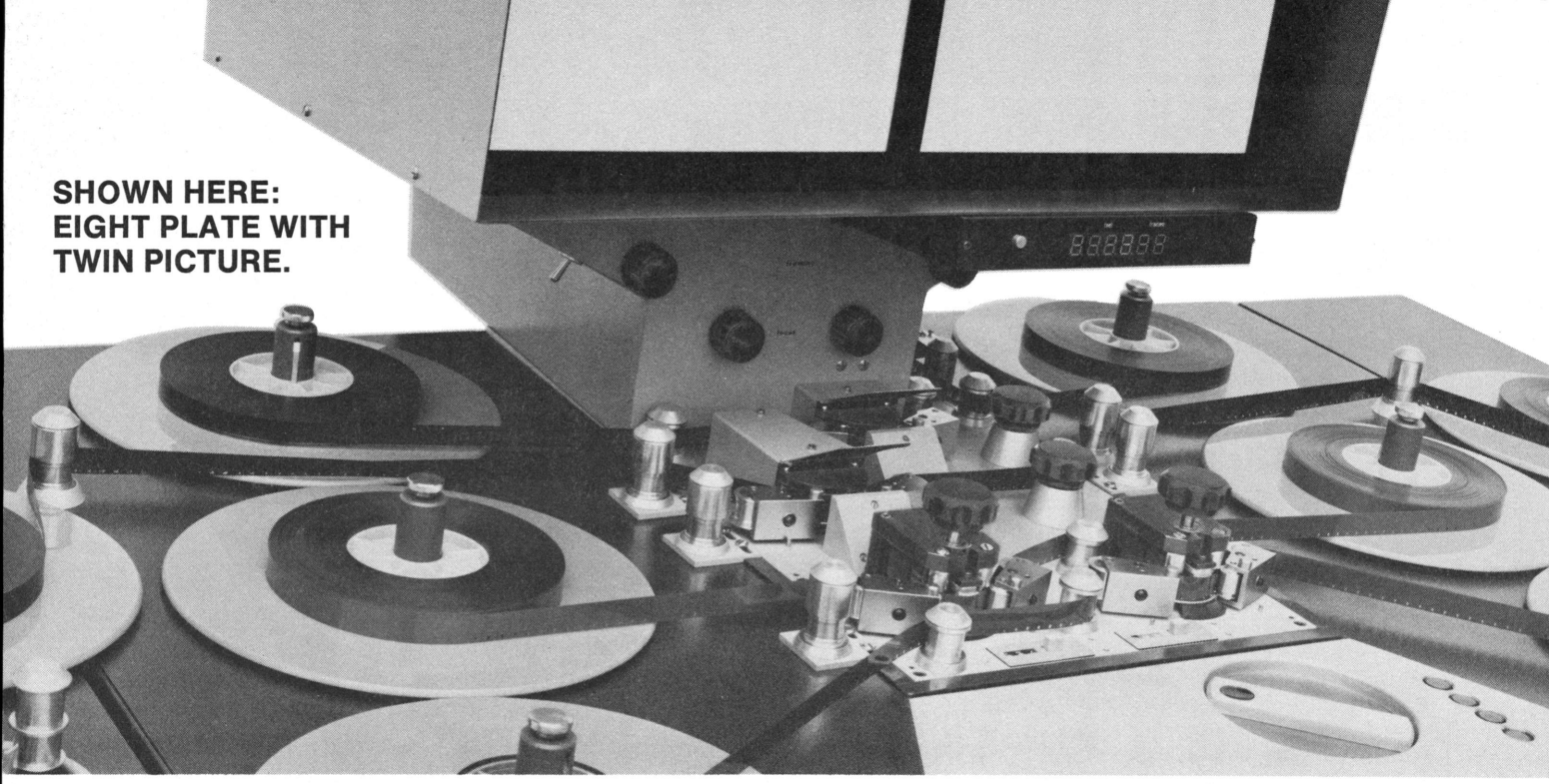


New KEM RS-2: a compact system with twin picture module and 24 sided flicker-free prism in 16mm. And switchable aspect ratios in 35mm.

Simple to operate: *One* control lever; and manual inching in sync, like a synchronizer.

An example of RS-2 versatility: suppose you have one set up as a 16mm eight plate, with the twin picture module.

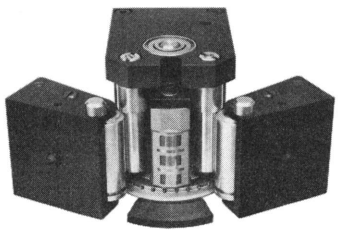
Officially, that's two picture and two sound tracks. But with the built-in optical/magnetic reader, you can run one picture and three mag tracks. *Without changing anything.*

Now put that same 16mm twin picture module on a *six* plate RS-2. You get two picture, one sound – or one picture, two sound tracks.

Interchangeable.

And every RS-2 will accept 35mm picture and sound modules. If you shoot 35mm occasionally, there's no need to get another machine to edit that. You can rent a 35mm module when you need one.

Or you can rent out *your* 35mm module while you're working in 16mm. Or, when you're ready, you can buy a second RS-2 with *no* picture or sound heads at all. Six or eight plate...



Why you can thread the RS-2 faster than any other machine: Single sprocket drive.

In each path, a single sprocket wheel drives the film. *That's one less to thread.* In both 16mm and 35mm, picture apertures and sound heads are mounted on the sprocket drive. (Various sound heads are available; shown above is a 35mm three-stripe.)

To thread, you drop the picture or mag film into position, jiggle it to engage the perfs – and then just *pull the film.* That makes the gate shoes click into place. No need to touch them.

Manual inching.

Big, handy inching knobs are mounted on each transport path. You can inch manually with all three (or all four) transports in sync – or out. Each sound transport has its own frame counter. And each path has adjustable sync points.

Engineering.

German precision; and dependable simplicity. When you check out the other machines, ask to look *inside.* Then look at the KEM.

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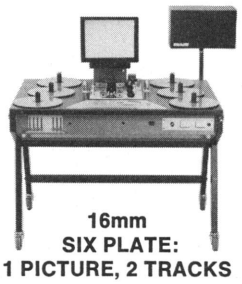

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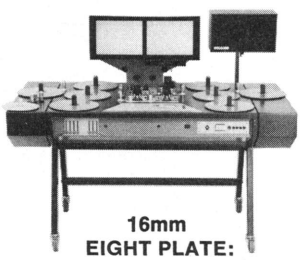

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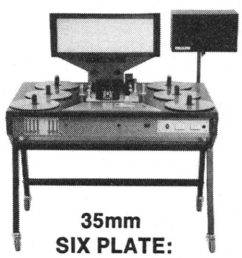

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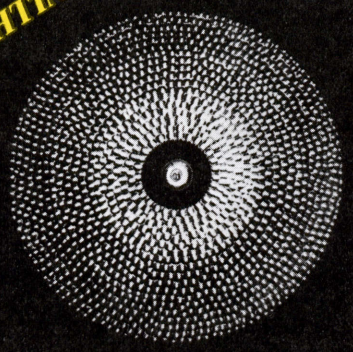

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BEHIND-THE-SCENES DIARY ON

James Clavell's

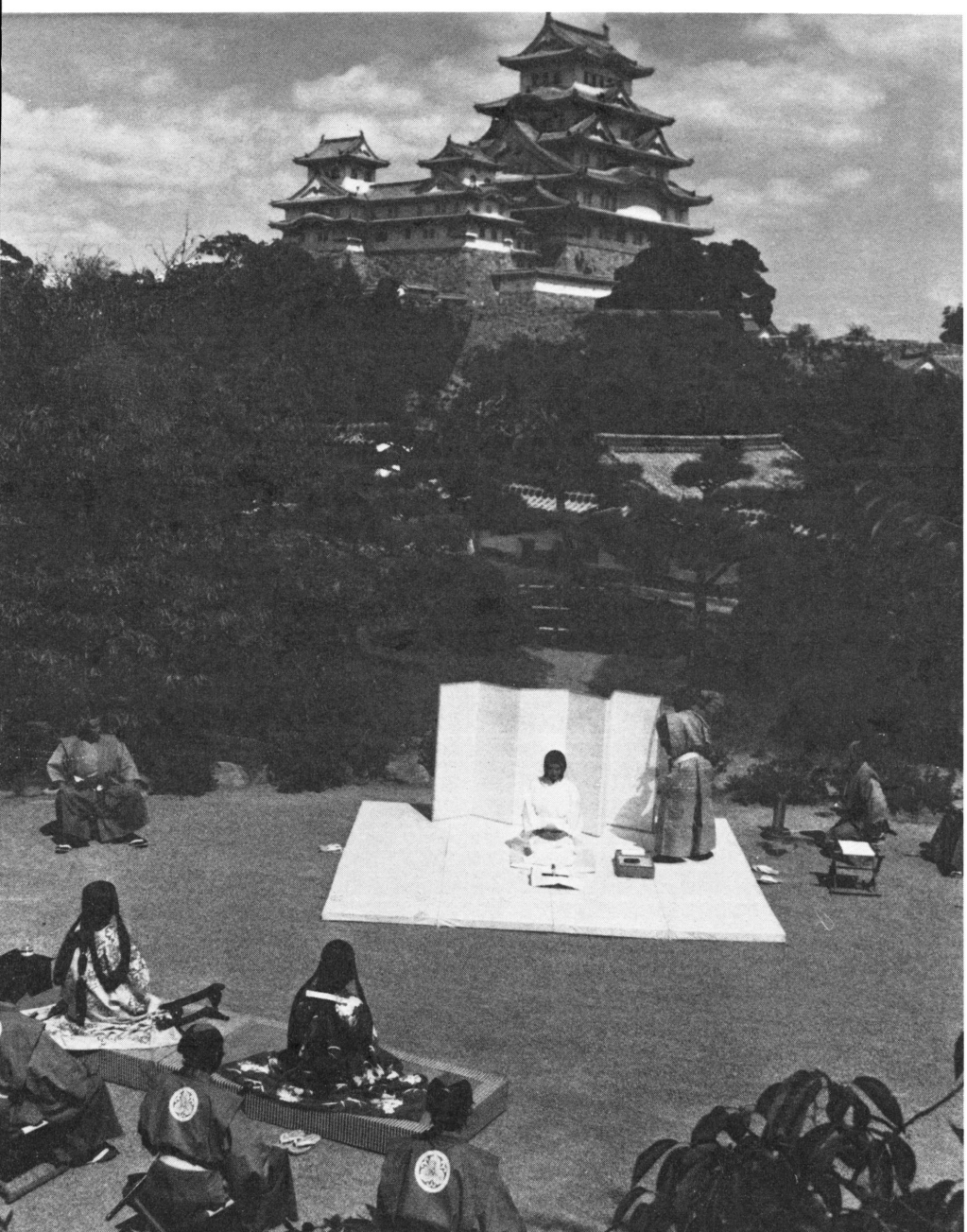
SHŌGUN

A fascinating insight into the day-to-day trials and tribulations of shooting a 12-hour television epic from a best-selling novel

James Clavell's SHOGUN, starring Richard Chamberlain, NBC-TV's much-awaited 12-hour, five-part epic miniseries based on Clavell's best-selling novel, is a fascinating blend of high adventure, romance, history, culture, religion, politics and old-fashioned entertainment.

Produced by Paramount TV in association with NBC Entertainment, SHOGUN will be broadcast over five consecutive nights starting (all NYT) *Monday, Sept. 15* (9 p.m.-midnight). It continues *Tuesday, Wednesday and Thursday, Sept. 16, 17 and 18* (9-11 p.m.) and concludes *Friday, Sept. 19* (8-11 p.m.).

With the fabulous Himeji Castle in the background, the highly stylized sequence of Mariko's *seppuku* (ritual suicide) is staged for the 12-hour mini-series filmed from James Clavell's best-selling novel, SHOGUN, which will be telecast on the NBC Network for five nights, September 15-19.



The story, called by Cosmopolitan magazine "an Oriental *'Gone With The Wind,'* " centers around John Blackthorne (Chamberlain), a shipwrecked English navigator who becomes a samurai (knight) in the mysterious—and often terrifying—world of Japan at the start of the 17th century.

It's also a classic romantic tragedy about Blackthorne's forbidden love affair with a beautiful lady samurai; a complex tale of political intrigue in feudal Japan; and the dramatic clash of cultures as seen through the eyes of a European Renaissance man "civilized" by his exposure to the Japanese way of life.

Co-starring with Chamberlain is Toshiro Mifune, often called "the John Wayne of Japan," who plays Toranaga, the powerful warlord plotting to become Shogun—supreme military dictator. Yoko Shimada, one of the brightest young stars of Japanese cinema, is Mariko, Blackthorne's interpreter and lover.

Filmed entirely on location in Japan, all twelve hours were directed by Jerry London from a script by producer/writer Eric Bercovici. Clavell, whose novel—more than six million copies in print—is an international best-seller in a dozen different languages, is executive producer.

During the eight months of production in some of the most remote areas of Japan, working under grueling conditions of weather and terrain, Director Jerry London kept a diary which contains illuminating insights into what it takes to put a best-selling epic on the screen with style and grandeur. What follows are excerpts from that diary:

FEBRUARY—Met with James Clavell, the author of SHOGUN. I could be directing this 12-hour mini-series for television, plus the feature for foreign distribution.

Meeting with Gary Nardino, President of Paramount Television, Deanne Barkley of NBC, David Goldsmith of Paramount, and my agent. Discussed casting. Names for the lead of Blackthorne were, Richard Chamberlain, Roger Moore, Albert Finney and Richard Jordan.

MARCH—My deal was completed for the SHOGUN project and contract was signed.

MARCH 26—First day in the SHOGUN office at Paramount. Selecting the crew.

To leave for Japan on April 2. Met the rest of the staff and Eric Bercovici, who is writing the screenplay. Read 260 pages of material, terrific. Tomorrow, interviewing editors.

MARCH 30—Met Richard Chamberlain, who we are considering for Blackthorne. Meeting the cameraman, Andrew Laszlo.

APRIL—At the LAX airport. An 11½-hour flight. Arrived at Narita Airport in Tokyo. Took the hour drive into Tokyo. Staying at Imperial Hotel. Next day, went to Toho Studio. Project is massive, the biggest movie for television ever. Building of ships, construction of sets, thousands of people working. A tremendous job.

Met the Art Director, Joe Jennings. He's building a whole town on the coast line in Nagashima. We have two different ships. The special effects and the drawings of costumes are spectacular.

Meeting Japanese actors and interpreters. Communication is difficult.

3RD—7TH DAY—Took Bullet train to

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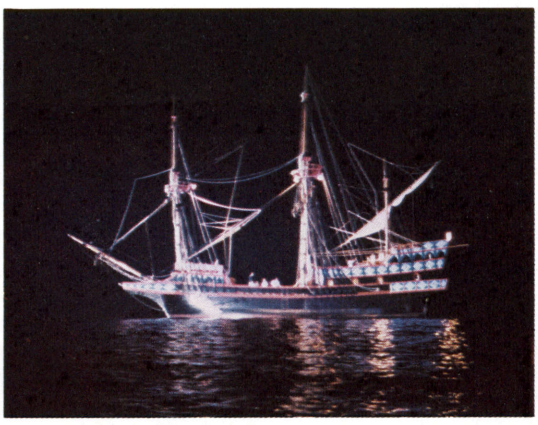


PHOTOGRAPHING "SHOGUN" ON AN EPIC SCALE

Bringing Japanese history to life on a canvas as sweeping as the country itself and as colorful as the combined arts of the cinema

By ANDREW LASZLO, ASC
Director of Photography

First I must say that SHOGUN was by far the largest filming project I have undertaken during my career as a cinematographer. The scope of the original novel was enormous and so was the scale of the filmed adaptation.

Going in, there were many, many difficulties, not the least of which was being away from home for such a long time—eight months of principal photography all over Japan, some of it in very remote areas. There were the special difficulties of working on such a vast project with such a large crew, most of whom were Japanese. The American contingent—certainly as far as my staff was concerned—was comprised of a limited number of people, most of whom were not even there at the start of shooting. They were imported as the production progressed, mostly from the West Coast. In fact, the only person who came with me from New York was my first assistant cameraman.

Another enormous challenge was that of recreating faithfully in visual terms the time and place of the original novel—17th Century Japan. Very careful research had been done to reproduce the authenticity of the era—the styles of the sets and the castles, the customs, the makeup, the costumes, the hairdos, the types of weapons, the types of ships, and so on. Consequently, as far as the style of the principal photography was concerned, my tendency was to lean toward a careful, almost documentary representation of what was put in front of the camera. The surroundings, the characters, the costumes, the castles and the sets were all Old Japan by design and I felt that it would be very, very difficult to improve on perfection. So we tried to reproduce as closely as possible the actuality of the period without resorting to too much gimmickry or the sort of "artistry" which, in my opinion, would have distorted the truthfulness and the factualness of the presentation.

Preparing to shoot a scene of Toshiro Mifune (as Toranaga) and Yoko Shimada (as Mariko) in a castle set constructed at the Daiei Studios in Kyoto. Authentic castles were used for exteriors, but permission could not be obtained for shooting inside the castles themselves, hence the studio sets.

I think it might be interesting at this point to back up a couple of years to the time shortly before my first exposure to the story of SHOGUN in book form. A very close friend of mine had approached me with the possibility of photographing SHOGUN as a feature film and, of course, there was nothing at that time that could have been more important to me than such an assignment. Reading the book was one of the great experiences of my life. I have since had many conversations about it with various people, including the author of the work, Mr. James Clavell, and I made no secret of the fact that, to a great extent, the story of SHOGUN had drastically altered my perceptions. It had changed my philosophies about religion; it had changed my philosophies about life in general.

Consequently, when I was actually approached to photograph SHOGUN, it seemed like a dream come true. The prospect of being away from home for such a long time and working under such difficult conditions became insignificant, in view of the possibility of being connected with the project in the capacity of cinematographer.

When the first version of the script arrived for me to read—even though it represented only the first half of the story—it looked like the Manhattan telephone book. It was a little bit scary, but I jumped into reading it, making notes in the margins of the pages and developing ideas which, of course, I later discussed with the director and Mr. Clavell.

In many ways the preparation for shooting exceeded my wildest expectations. After arriving in Japan we went

on a location survey that took in just about the whole country. We spent a week on the road without stopping—by bullet train, by bus and by private car. Some of the things I saw went far beyond my expectations—for example, the ancient castles dating back to the 14th and 15th centuries and still in an excellent state of repair, the countryside, the shrines—all of which were going to play such an important part in the filming of SHOGUN.

In addition, there would be the enormous undertaking of building two complete towns as exterior sets. Wherever you go in the countryside of Japan today you see the rice paddies and the mist hanging over the mountains, but you also see the high-tension wires and the highways and smoke coming out of the smokestacks. Finding an unspoiled 15th century village in Japan, particularly on the seashore, is impossible; you might as well forget it. Even finding a location to build such a village, minus the high-tension wires and TV antennas, was a very difficult task, but the Production Department, which had spent, on and off, almost two years in Japan before I got there, found two suitable locations. On one of them we built the fishing village of Anjiro and on the other one the Osaka Harbor set.

After permission had been secured from the government and the local residents to build these sets, it was necessary to bulldoze roads big enough and solid enough to accept heavy construction equipment. There was no such thing as a phony building. Every building was constructed as though it had been built for someone to move into. Some of the structures were built two or three times. For example, the house where Blackthorne lives overlooking the village of Anjiro and the bay, was built full-scale and in complete detail on the location. It was also reproduced in the studio in Kyoto and part of it was erected in the studio in Tokyo, as well. All of this, of course, was to accommodate the complex schedule and actor availability as we moved from place to place.

One of the reasons that we started the filming at the Toho Studios in Tokyo was that they had the biggest outdoor tank to accommodate the ships that we had to photograph at night in order to recreate the typhoon that eventually carries Blackthorne, his ship and his crew to the shores of Japan. We had built two full-sized 15th-century Japanese galleys, one of which was seaworthy for filming in the open ocean. The other was a full-scale mock-up to work in the tank. The only difference between the two was that the mock-up had no bottom, which permitted it to be lifted onto the gimbal mechanism that created the rolling and rocking motion of the galley at sea. Outside of that, it was constructed in every detail as if they were going to put out to sea in it.

Director of Photography Andrew Laszlo, ASC, lines up a camera angle outside the Fushimomoyama castle, a classic structure that was taken apart stone by stone and reassembled as a public attraction in an amusement area of Kyoto. (BELOW) Laszlo shares a moment between takes with Richard Chamberlain, shown here in classic samurai gear, complete with bald pate.

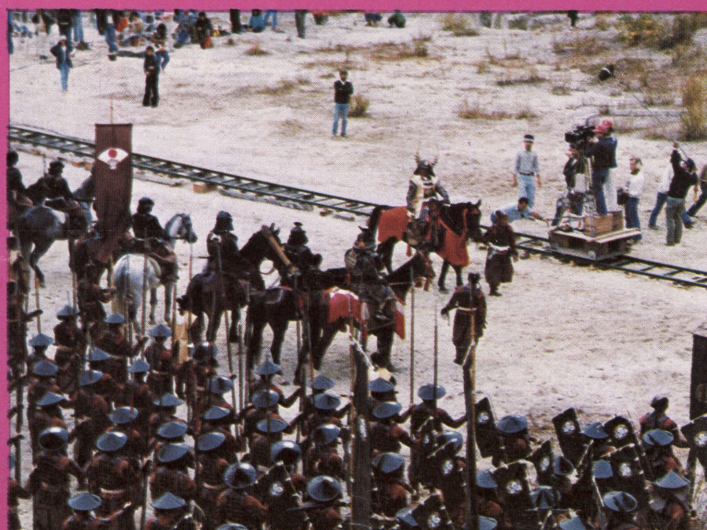
It was truly amazing the way the Japanese technicians would approach building a set or a prop. There seemed to be no acceptable way to build anything unless it was 100° perfect, as well as true to tradition and the traditional methods of construction. The floors in the castle were built entirely of hand-planed, hand-stained and hand-waxed lumber. The beams were not box-beams; if the shop construction called for 12 x 12 beams, they were made out of 12 x 12 lumber. It was amazing to watch a Japanese carpenter working on the erection of one of the sets, hacking away with a little handsaw at a 12 x 12 beam, while there was a made-in-Japan chain saw lying on the floor next to him. The little handsaw he was using was a curious hybrid between a Western saw and a Japanese Samurai saw in that it has a long handle and, while razor-sharp, has to be pulled instead of pushed. It takes a little time that way to cut through a 12 x 12 beam.

Somehow they mixed the modern ways with the traditional, but, at times,

(LEFT) Hemmed in by two fierce-looking samurai, Laszlo "goes bananas". (RIGHT) Two Panaflex cameras are set up for low-angle filming in a castle garden that looks like a landscape out of an ancient Japanese print. Two cameras were common throughout the filming of SHOGUN. (BELOW) Hundreds of feet of dolly track had to be laid on bulldozed terrain for this scene where Toranaga reviews his troops. Since metal dolly track is rare in Japan, this is wooden track constructed "railroad style."

the traditional ways had a way of winning out. The thatched roof on the home in the village where Blackthorne is first taken after the storm washes him ashore was put on by a thatcher and, even though it was constructed in the studio, for all practical purposes it was a real roof, done in the best way for putting up a thatched roof. Nothing was phony because it was to be used in a motion picture, and while this was wonderful (and nice to think back on), in many ways it presented production problems—especially when you wanted to remove a wall. You just about had to remove approximately half the

(LEFT) Multiple cameras are readied for the filming of the big earthquake sequence. A total of 10 cameras was used. (RIGHT) Since there was no proper camera car available for filming running shots along an uneven country road, the problem was solved by an operator with a Panaglide camera stabilizing device riding atop a van.



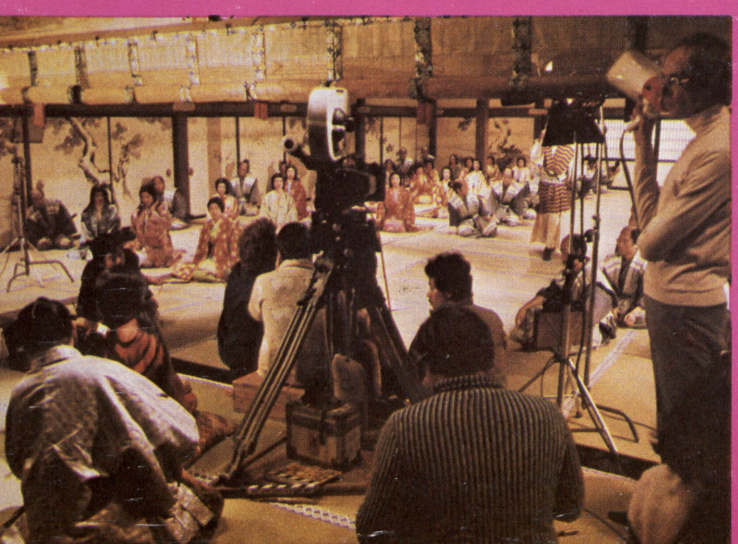
(LEFT) In the huge tank at Toho Studios, lights blaze, wave-motion machines rock the water into a choppy sea and wind machines create raging winds, as a gimbal-mounted replica of *The Golden Hinde* (doubling as Blackthorne's ship *Erasmus*) vainly battles the storm. (RIGHT) Lighting *The Golden Hinde* for scenes at sea. (BELOW LEFT) Laszlo takes a light reading on the Shogun himself, famed Japanese actor Toshiro Mifune. (RIGHT) The beauty of classic Japan, including its doll-like ladies, is captured by the Panavision camera.

building and this resulted in a kind of communications gap between the American side and the Japanese side—one not fully understanding the other side's procedures and problems. But in spite of that, we had a wonderful relationship with the Japanese staff and crew, most of whom were remarkably able and talented people and really a pleasure to work with.

The preparation for actual filming had, of course, started with the selection of crews, the checking of plans for the sets and the colors of the costumes. I fur-

Continued on Page 918

(LEFT) Hundreds of colorfully garbed nobles kneel on the floor of a huge castle set built at the Daiei Studios in Kyoto, where many samurai features have been filmed in the past. (RIGHT) On stages of the Toho Studios in Tokyo structures are built to duplicate outdoor sets constructed at Nagashima to represent the towns of Anjiro and Osaka.



THE SCREENWRITER/PRODUCER TALKS ABOUT "SHOGUN"

It was a project that was impossible to do—but they didn't know it, so they completed the impossible three days ahead of schedule

Eric Bercovici, an experienced hand at adapting novels for television, knew before he finished reading James Clavell's *"Shogun"* there was only one way to write the screenplay for the 12-hour NBC-TV miniseries.

"The story had to be told completely from Blackthorne's point of view," he says, "because Blackthorne is the character Western audiences will identify with.

"As Blackthorne learns the Japanese language and customs—so do we. Using subtitles or voice-overs would have killed the show. The way the script was constructed and the film shot, the viewer won't have any trouble understanding what's going on."

Bercovici's three previous miniseries credits are: WASHINGTON: BEHIND CLOSED DOORS (Emmy nomination); Pete Hamill's FLESH AND BLOOD (Writers Guild Award nomination); and Irwin Shaw's THE TOP OF THE HILL for Operation Prime Time.

"The technique of adaptation is one that is very hard to teach," he says. "It's only learned by doing it over and over again. Novels and screenplays are very different creatures."

A playwright, novelist and internationally renowned screenwriter, Eric is the son of screenwriter-novelist Leonardo Bercovici (PORTRAIT OF JENNIE, THE BISHOP'S WIFE,) and the great nephew of Konrad Bercovici, famous for his novels about gypsy life in Rumania and screenwriter for Cecil B. De Mille.

"Every adult male in my family is a writer," he says. "I didn't know I could be anything else until I was over 21. That's just what we did."

A native of New York's Greenwich Village, Bercovici began writing short stories at seven, completed his first screenplay at 13, and turned professional at 19 with the sale of a play to New World Writing magazine.

Following graduation from St. John's College (Annapolis, Md.), he majored in playwrighting at the Yale School of Drama. After Yale he returned to New York "expecting the theater world to be waiting there with open arms."

"Instead, I ended up loading freight cars for Railway Express."

By claiming he went to Yale as a production—rather than playwright—major, he landed a job in 1957 as an assistant unit manager on THE 20TH CENTURY, a documentary series hosted by Walter Cronkite.

In 1960 he decided to try his luck in Europe. He lived in London, Paris and Rome before ending up in Barcelona as a dialogue coach on an "international" picture called LAST NIGHT OF LOVE. His next job was to write the English language version of another forgettable film, TORMENT OF LOVE.

By 1964, Bercovici had carved out a very profitable career as a European screenwriter working for producers including Carlo Ponti and Sir Lew Grade. Then, the Italian legislature passed a new law restricting the use of foreigners in the Italian movie business.

Unable to make a living in Europe, Bercovici returned to the U.S., soon to earn his first Writers Guild Award nomination for COPS AND ROBBERS on NBC. Dozens of assignments followed on episodic dramas including I SPY, THE VIRGINIAN and POLICE STORY.

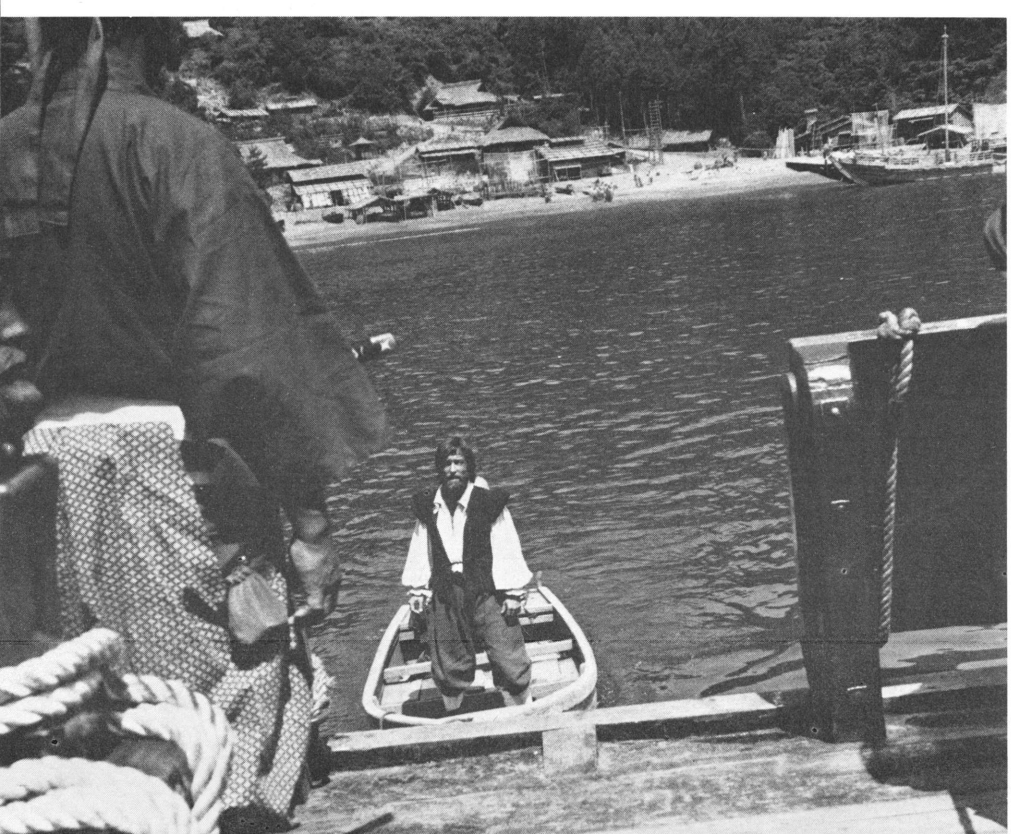
His feature film credits include: THE DAY OF THE EVIL GUN, HELL IN THE PACIFIC (co-starring Toshiro Mifune), Elvis Presley's CHANGE OF HABIT, and THE CULPEPPER CATTLE COMPANY, which earned him a Screenwriters Guild Award nomination.

His TV movies include: ASSIGNMENT MUNICH and STRANGE HOMECOMING. He won another Writers Guild Award nomination for the F.O.B. HONOLULU episode of HAWAII FIVE-O.

Bercovici's novel, "Wolftrap", was published in 1979.

In the interview that follows, he discusses his dual role as screenwriter/producer of James Clavell's SHOGUN.

Richard Chamberlain as Blackthorne approaches Japanese galley off the coast of Anjiro, a 17th-century fishing village built from scratch by the film company in the remote area of Nagashima. This was one of the few seacoast areas left unspoiled by signs of "civilization", but it was right in the pathway of typhoons, one of which destroyed the film set.



QUESTION: As both screenplay writer and producer of the filmed SHOGUN could you give me a bit of background to the project?

BERCOVICI: Well, to begin with, it was a project that was totally impossible to do. There was no way that this film could be made—which none of us knew. So when we got to Japan and got involved in the production of it, we very rapidly came to the realization that the textbook of how to make a movie did not have a chapter on how to make a 12-hour movie in Japan that takes place in the year 1600. Everybody had to come up with all of the inventiveness that they had in each department in order to make it work. It is always wonderful as a writer to sit down and write a script and have that movie play in your head, but the transfer from that fantasy to the reality of trying to make a 12-hour movie—well, there were a lot of hard knocks involved. Though Clavell had researched his book very thoroughly, there were still a number of areas which the Japanese found to be

inaccurate and we corrected those inaccuracies, for the most part. We felt that we were not making a documentary; we were not making a piece of historical research. The film is fiction and the film is designed to entertain. One small instance of that was when we were filming in Hikone near a beautiful lake, with a castle in the background. There were swans in the lake. Well, we turn around and Jerry London sees that the Japanese assistants are chasing the swans away and they then tell us that swans didn't come to Japan until 40 years later. Well, we figured that the added attraction of the swans in the lake was more important to the picture than 40 years of historical accuracy. I also think that if you took a poll to find out how many people knew exactly what year swans came to Japan it would represent a very small part of the audience.

QUESTION: In a project full of demanding sequences, which would you say was the most challenging?

BERCOVICI: The storm sequence that we filmed in the Toho Studio tank in Tokyo. The tank was not a tank which was prepared physically to do the kind of sequence that we needed, so we had to redo the Toho tank, tear out the center of it, build a pit, put a gimbal in the pit, and as far as I know, the Japanese had never seen anything resembling what we had done and they regarded it with a certain degree of amazement.

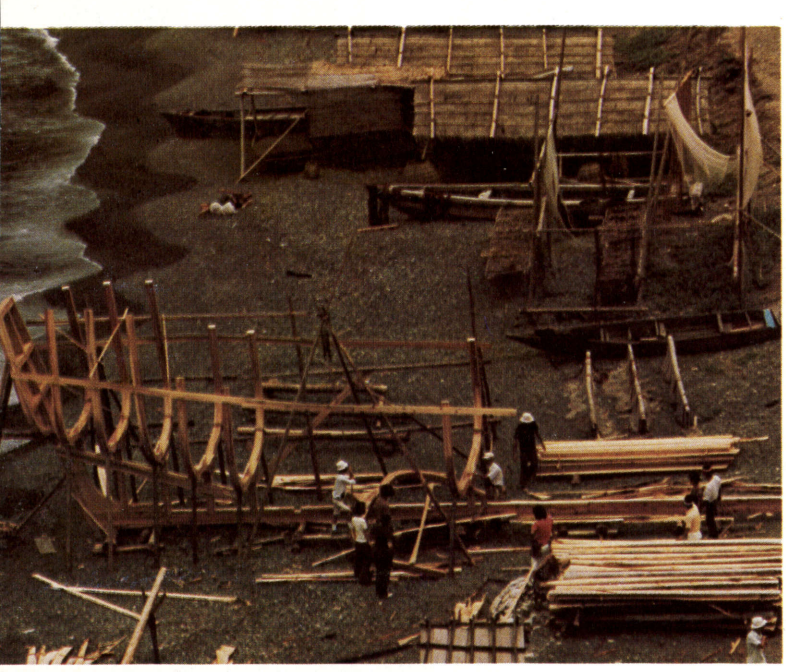
Certainly gimbals have been built before and storm sequences have been filmed before but as far as I know this may be the biggest, in terms of physical production at least, that I've ever seen. We had a mock-up of the galley that was inch-for-inch identical with the real galley. It was a rather large boat to put on a gimbal and with all the wavemaking machines and the airplane motors driving it and the hoses and the water guns, it was epic. To begin a picture of this size with that type of production let us all know very quickly what we were in for. We literally and figuratively got our feet wet immediately. In terms of the construction, Joe Jennings, our Art Director, and Al DeGaetano, who was our construction coordinator, discovered very rapidly that building a set in Japan is very different than building a set in Hollywood. In Japan the construction techniques are far more complicated than ours. One would think that in Japan it would be simpler. But in Japan it was far more complicated to have a wild wall. They would lay down railroad track and put huge wheels on it to move a wall out rather than have a couple of grips come and unscrew a couple of plugs in the floor, lift it up and carry it out. So, in order to get the construction done right from the beginning, our construction people had to come up with a way of working within the Japanese system. We were not making a Japanese film; we were making an American film set in Japan. However we were making the film with 70 percent of our crew Japanese and finding a working method in every area was a totally new experience for everybody who worked on the picture.

The talented triumvirate at the helm for the filming of SHOGUN. (Left to right) James Clavell, author of the best-selling novel and Executive Producer of the Film, Director Jerry London, Screenwriter/producer Eric Bercovici. They had an agreement going in that a two-out-of-three vote on debatable points would be considered to be "unanimous".

QUESTION: Now, when you say that SHOGUN was impossible to make, how do you interpret that in this case?

BERCOVICI: Well, I think that if anyone had been able to mystically look ahead and foresee the problems that we would have to deal with, they would have simply sat back, shook their heads and said, "It can't be done." Japan, as you know, is a highly industrialized country. The fishing village at Anjiro, in which a major part of the story takes place, is something that had to be constructed; you couldn't just go out and find it. Well, that really comes down to having the people and the money to do it. You have to find the place where you can construct it, where you won't have television towers and power antennas and all of that stuff in the background. The location that was found and chosen was a very isolated and very beautiful beach area where we then proceeded to construct two cities in two separate coves on that beach. And there was a very good reason why this area was undeveloped, because when the typhoons come to Japan they come through Nagashima and we moved

Coming from a family of writers, Eric Bercovici never considered any other type of career, but his writing skills reached full fruition in the film form. (ABOVE) Part of the pageantry of SHOGUN derives from the formal, stylized court customs of the time, many of which are meticulously portrayed in the 12-hour series.



(LEFT) After Blackthorne's ship is burned, he begins the construction of another, but his *karma* is to never leave Japan. (RIGHT) Director London, Chamberlain in full samurai makeup, and Eric Bercovici. Both London and Bercovici have the highest praise for the star because of his unstinting dedication to the project. (BELOW LEFT) The elegant Panaflex camera seems like an anachronism in this setting of 17th-century Japan. (RIGHT) The gang's all here. Crew and cast members sit for an informal portrait in one of the castle sets. Despite all the hardships of production, they were a tightly knit, dedicated team whose enthusiasm carried them through.

down to Nagashima in July, which was the beginning of the typhoon season and we held our breath all through July and all through August and when we finished shooting the last of our set-ups in Nagashima, the rain began to fall and that was the typhoon. It was so bad it wiped out the trains. The next day the trains were out; everything was out. The typhoon went for five days and we were very lucky. If our schedule had called for us not to finished on the first but on the tenth we would have been in a lot of trouble.

QUESTION: Japan has a highly developed film industry, and a great many samurai epics have been made there. I should have thought they would have had just about anything you might require to film SHOGUN. Is that a fair supposition?

BERCOVICI: Well, the studios are certainly there, but the equipment that we found there was not really the equipment that we wanted to use and, therefore, as you know, we brought all our cameras in from Hong Kong, from Panavision. And almost all of the lighting equipment that Andy Laszlo required had to be brought in. While the Japanese cinema is certainly a highly developed production unit—God knows they make a lot of pictures, and they've made some magnificent pictures—their whole approach to motion picture making is very different than an American approach and particularly very different than the approach we needed to take, which was that we were making not only a 12-hour movie for television, but a feature film, as well, and we had a schedule of 133 days; that's for 12 hours of film. Add another hour on to that in terms of what we had to shoot for the bridge scenes in the feature; so call it 13 hours of filming in 133 days. RED BEARD, which was a magnificent film, took 18 months to shoot. THE SEVEN SAMURAI took a year to shoot, because for a lot of reasons, including financial reason, they will film part of a picture and then stop production and then they will reorganize their finances. The people who are working on the film will think on it, reflect on it, and consider how they can make it better and how they have been performing their own jobs. Well, that was certainly a luxury that we didn't have. We couldn't afford to shut down production. Therefore, we tried to keep going on really an American schedule. It really boils down to the fact that we were shooting an hour of film every ten days. That's going at a pretty good clip and, in fact, the picture came in three days ahead of schedule, so we came in at 130 days. What made that at all possible was the fact that Jerry London had done a lot of directing for American television, Andy Laszlo was a terrific and very experienced cinematographer, and the American grips, gaffer, Best Boy and electricians could move at that pace, and it was a pace like that which was required in order to finish the picture the way we did. Otherwise, we would still be there.

A Japanese galley threads its way between rocks off the coast of Nagashima, as the camera records its progress. According to Bercovici, SHOGUN could not have been filmed anywhere else but in Japan. The old castles, the authentic props and the distinctive landscape add up to a richness of production values that could not have been achieved in any other way.

QUESTION: Maybe this is a delicate question, but how did your Japanese colleagues adapt to this kind of fast schedule?

BERCOVICI: Some of them adapted very well and some of them didn't, but I think you will find that in any production, whether it is a completely American production shot in Hollywood or any kind of co-production shot anywhere in the world. You will find people who adapt to the way you want to work and you will find people who don't adapt as easily. Certainly there were problems in the production of SHOGUN, but the fact that we finished three days ahead of schedule on a production this big speaks for itself.

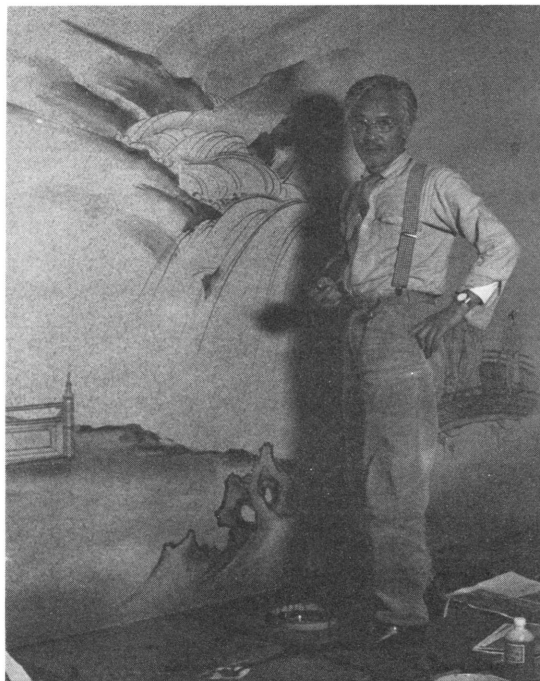
QUESTION: Because of the logistical problems of working so far from home base, had any consideration ever been given to trying to film SHOGUN in Hollywood or another domestic location?

BERCOVICI: SHOGUN is a film that could not have been made anywhere else but where we made it. The production values we got out of filming in Japan were spectacular. To contemplate making that picture anywhere else and constructing the Japanese castles we needed would have immediately ended the project.

QUESTION: Were you actually given permission to use the castles as filming locations?

Continued on Page 922

Shin Nishada not only designed the costumes for SHOGUN (all of which were made in Japan), but he also decorated the walls of the castle sets with his own beautiful stylized paintings.



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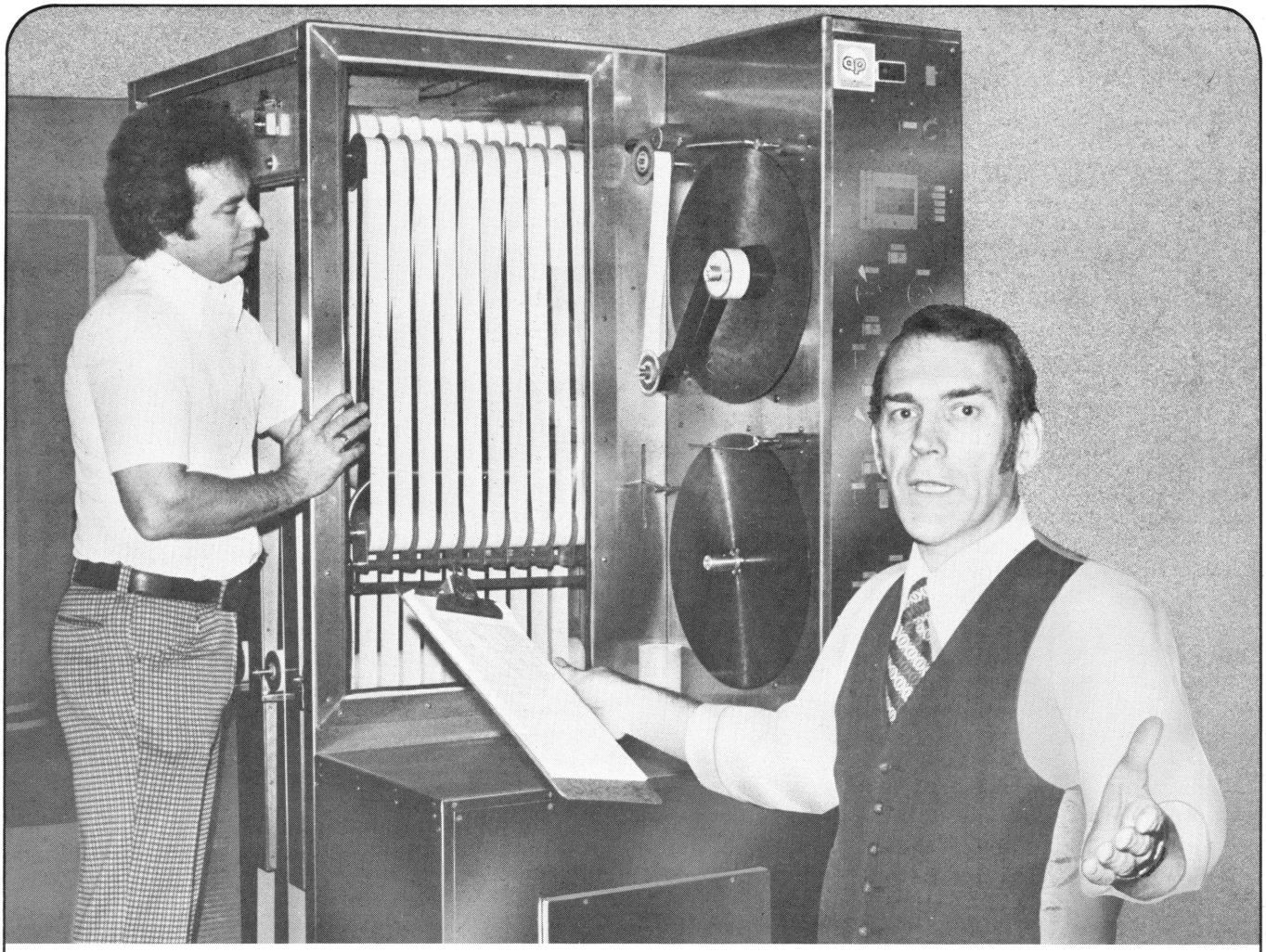

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THE DIRECTOR'S VIEW OF SHŌGUN

Despite the language barrier, rough weather and not enough time, "movie magic" and sheer determination make this project a reality

By JERRY LONDON

When I was chosen to direct SHOGUN the first thing that came to mind was, "How in hell do you do something of this size?" That's the first thing that a director would think about. No matter how much money you might have—an unlimited budget, for that matter—there was still the enormity of the project to be considered.

What really persuaded me that it could be done was thinking back of a certain picture I had seen, Kubrick's 2001: A SPACE ODYSSEY. When I saw that picture it struck me as being real movie magic—more so than any other I had ever seen. So I knew that through movie magic we could defeat any problem that might come up during the making of SHOGUN. Afterwards many people told me that it would be impossible to make. I was always having the negative thrown at me, but that only made it more exciting and more of a challenge.

When I first met James Clavell one of the things that really impressed me about him was that he was a very up-front person. He said, "If you are going to direct this picture, just remember that you are the director and I'm not." He said to Eric Bercovici, the writer, "It's your ball; you run with it." That's exactly what happened and it made things so much easier, because he was always back there encouraging us, but he was never putting stumbling blocks in our way.

This is my fourth mini-series and I've done hundreds of television shows, but I must say that of all the shows I've done this one had the least interference from studio, network, producers or actors. Everyone was so enthused with the project itself and they all wanted it to be good, so they said, "Go with it!"

Filming SHOGUN was the greatest team effort that has ever been made in motion picture industry, I think, because everyone had this energy about them and they all knew it was going to be great. Everyone that we picked and brought over from the States was just so thrilled to be involved with it—more so than the Japanese. The novel had not yet been translated into Japanese, so the people there did not know SHOGUN as we knew it. They knew it was a novel about Japan, but they didn't have the excitement that we had. They were excited about making a co-production. They were excited about seeing an era of Japanese history put on film and shown to the world. SHOGUN is going to do a lot for travel to Japan. It's going to make Japan a romantic country.

As far as technical problems are concerned, I know for sure that we had every type of technical problem there is. We attacked all of them. Some of the major ones included sea battles, the earthquake sequence, the storming of the castle, and just the enormous number of people that we had in every scene. Every scene had six or eight principals and at least 200 extras. It is an epic picture, but with a very simple story, and this is what I found exciting. I felt that I was Blackthorne. I was this Westerner thrown into this foreign country with a goal in mind, trying to solve the problems of survival. That's what it was, and it was very difficult. But the energy and enthusiasm we all had just carried us through.

I think that SHOGUN is going to be enormously successful. The film is just breathtaking and it has, in my opinion, some of the finest performances of any film done to date. That holds true from the lead characters all the way down to the minor characters. Everyone is delineated so well in the script. For instance, Blackthorne's crew in the film consists of about eight men and each one has his own individual character. We hand-selected everyone to look different, feel different, be different. The same approach applied to the casting of the Japanese characters. Americans are not used to seeing a lot of Orientals, so it's hard for them to recognize one from another. In SHOGUN every Japanese character has a distinctive look, so it will be easy for the audience to tell Omi from Yabu or Buntaro. In a series lasting 12 hours, every part is integral to the story, so you will get to know each one of them. It isn't like they will pass through in three lines; everyone has a good part.

I think that the audience is going to have the same adventure that Blackthorne did, that Eric and I did. It was truly an adventure. We went there not really knowing what it was about and we went through this massive technical and artistic operation and ended up with something that we are all very proud of.

The language barrier between myself and the Japanese actors was a formidable one, but fortunately I had about four actors in leading roles who spoke some English, enough so that I could communicate with them, and I must say that it was a very big help. I had terrific interpreters and they were wonderful, but inevitably you go through this time sequence of I say to her and she says to

Many historic sites in scattered areas of Japan were used as filming locations and lent tremendous production value to SHOGUN. It would have been impossible to shoot the mini-series anywhere else with the same degree of sumptuous versimilitude. In addition to its entertainment value, the series is an illustrated lesson in Japanese history.

them and they say to her and she says to me and she says to them and then we go back again. It sure was a lot easier when I didn't have to go through that. I had so many things to do besides directing the actors. I had to stage the scenes, figure out what our next location was, what we were going to do tomorrow, and so on and so forth, which meant that any time I could save, any minute, was precious. So it was really valuable to have those actors who could speak some English, although I must say that we did not cast any actors simply because they were bilingual. It was a matter of who was best for the part.

The least amount of problems I had on the whole show was with the actors. We really spent time in casting and everyone was prepared and helped however they could to make the scenes better. On Sundays we would rehearse the whole week's work, which was a big help. Every Sunday we would have a reading of all the scenes we were to shoot during the following week and that became very important, because Eric and I would sit and listen and if something didn't work we could fix it. Also, the actors got to feel each other out, and that was a great advantage.

One of the biggest helps to me was having done three other mini-series and, being aware of the complexities which occur on a long shooting schedule, I blocked the whole show before we started. When I say "blocked it", I don't mean down to the last detail, but sufficiently so that I could handle any scene that popped up. And they did pop up. Due to changes in scheduling caused by weather conditions, actor availability, technical or other problems we were changing the schedule constantly. On the fourth day of the week someone would say, "Hey, that's not going to be ready." And we'd have to substitute a scene that wasn't scheduled to be shot until three months later. The only way I could handle such a crisis, with all of the other daily problems I had, was to be prepared to shoot any scene at any time. I learned that on the first mini-series that I did, which was WHEELS—10 hours long.

I've always been a director who likes to prepare ahead of time, so that I'll have the extra time on the set to work with the actors. It's always a help to me, but with SHOGUN being such a massive epic, it was mandatory that I be prepared. You had to be, because of all the sudden changes in schedule. Eric Bercovici was always there and was available to consult with me and work things out. It was the greatest help in the world. He and I really made the picture, because James Clavell said, "Hey guys, do it!" And Paramount let us do it ourselves. They were in Hollywood and we were 8,000 miles away. It was terrific for them to have that kind of confidence in us, and I think that worked.

This full-size authentic Japanese galley, anchored at the wharf built at Nagashima to simulate Osaka harbor, is one of several large practical props used in the filming. Extensive research assured the authenticity of the thousands of props, costumes and architectural details portrayed on the screen.

Even though the Japanese actors were speaking Japanese in the film and I don't understand the language, from the acting standpoint I could tell when a performance was off. If there was an error or fluff in dialogue I had a Japanese script girl along with my American scriptperson and they would tip me off. But it got to be second nature knowing a performance. It was just like seeing Americans. I had one of the few copies of the script that had the Japanese translated, so I knew what it meant and what the scene was all about. When we got into the scene there was no problem at all. They would read it. You could see the interplay between the people and you'd either print the take or ask them to do it again. It never became a problem. If someone missed a line, my Japanese script girl would say, "This was left out."

Richard Chamberlain, playing Blackthorne, was the only American in the cast. We went to England to cast the 20 other English-speaking actors who would play Blackthorne's crew and the Portuguese priests. Most of these actors had been in the Royal Shakespeake Theatre and were absolutely fantastic. Many of them had speeches that ran a whole page on the script. Richard, who had studied in England, carried the whole show in the sense that he was in every scene, and when he got into scenes with the English actors it was like watching a stageplay. It gave us a chance to shoot masters that were six and seven pages long, which is a rarity.

When I first read the script I noted that there was a trouble spot in it. There was a scene that ran for 18 pages and I asked myself how I could stage a scene that was 18 pages long, with people just talking (Toranaga and Blackthorne) the first time they meet in this big room. I thought of doing it outside, of doing it inside—anything to break it up. I knew that if that scene worked there would never be a problem in the show as far as the Japanese and the English translation were concerned, because they were throwing it back and forth for 18 pages. Toshiro Mifune and an actor named Damien Thomas who plays Father Alvito and Richard Chamberlain carry those 18 pages and it is one of the most tense and beautiful scenes you will ever see. That was really one of the big challenges, as far as the staging of scenes was concerned. There's movement in it, but it is so well written that the mechanics are there.

Mifune is probably the most well-known Japanese actor of our time. He's the first one on the set, he's always dressed and ready, he always knows his lines and he knows the other Japanese actors' lines. He knows Japanese history and was terrific in helping with the staging of the background action and so forth. He understands English, but he doesn't

Continued on Page 940

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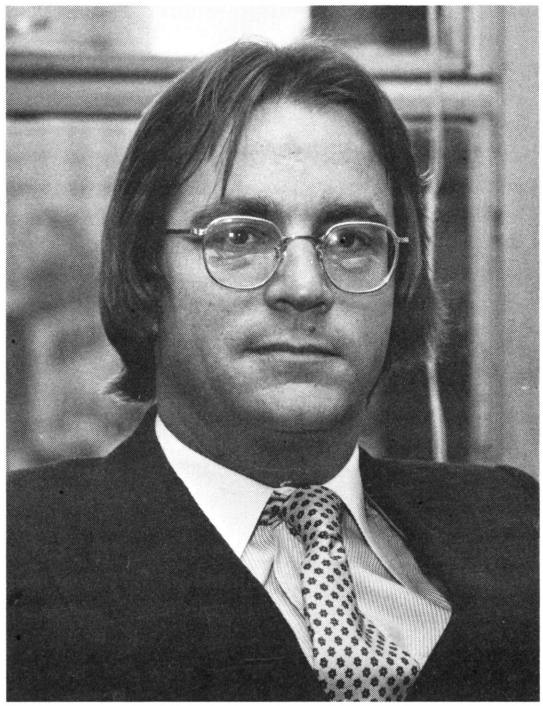

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FROM BEST-SELLING NOVEL TO TELEVISION EPIC

The author of SHOGUN and Executive Producer of the television version talks about his dual role in bringing this property to the video tube

"It's a bloody miracle!"

That was James Clavell's first reaction on seeing the completed rough-cut of SHOGUN, the six-part, 12-hour adaptation of his epic novel about feudal Japan that will launch the fall season on NBC-TV.

Clavell, a top Hollywood writer-producer-director, before turning best-selling author (*"King Rat," "Tai-Pan"*), says, "I know how hard it is to make a quality film of two hours—never mind 12. That's why I call it a miracle."

As the screen writer of such hit films as THE GREAT ESCAPE, TO SIR WITH LOVE and THE FLY, Clavell has a unique advantage in overseeing the transformation of his book into a long form television drama.

"It's the best adaptation of a novel I've ever seen," he says. "The production values are beautifully mounted, and Richard Chamberlain is outstanding. He's as good in this role as any actor could hope to be."

From the initial story idea, to the research, writing, publication of the novel and now TV miniseries, SHOGUN has been a daily part of Clavell's life for more than a decade. That—along with the fact he's busy finishing up his fourth novel—is the reason why he left the screenwriting of SHOGUN up to Eric Bercovici.

"I've never wanted to adapt my own work." he adds. "Besides, Eric wrote a much better screenplay than I would have because I know the story too well and it's hard to cut your own stuff."

Although Clavell, a very private man, says he can't imagine ever writing an autobiography, he could, if he ever changes his mind, tell a real-life adventure with all the color and excitement of his best-selling fiction.

A self-described "half-Irish Englishman with Scot overtones, born in Australia, a citizen of the U.S.A., residing in California, England, Canada, or wherever," Clavell comes from a long line of British military officers stretching back to Walterus de Claville, armor-bearer to William the Conquerer.

The son of Captain Sir Richard and Eileen (Lady Ross-Collis) Clavell (R.N.), he grew up in naval ports throughout the United Kingdom. At 18—already a captain in the Royal Artillery—he was captured by the Japanese in Java and spent the last three years of World War II in Japan's infamous Changi camp in Singapore.

Although he says "everything goes back to Changi—it is genesis," he is reluctant to speak about his POW experiences.

"It's all there, in the book," he says. "Like most first novels, *'King Rat'* is more fact than fiction."

After the war, liberated and back in England, Clavell looked for a non-military career. One day he visited a London studio where his girlfriend, a ballerina (later his wife), was making a film. Fascinated by the "magic and illusion" of moviemaking he decided he'd like to be a director.

On the advice of a friend he became a film distributor first. Three years later he was ready to make his move.

"I learned the way you become a director is to become a producer first, and then appoint yourself. But to be a producer you needed money or a property. I didn't have any money, so I was forced to become a writer to create a property. So I wrote a screenplay under a pseudonym and went around to all the studios saying I had discovered this marvelous new talent.

"That didn't work terribly well so I came to the States. Through a long series of mishaps an owner of a studio in New York (who thought I was one of Charlie Chaplin's assistant directors) gave me a job directing commercials.

"My next stop was Hollywood. People would ask me what I've done and I'd say, 'I'm a writer—and also a director.' They'd ask what I had written and I'd mumble things that sounded important."

In 1955, Clavell got his first big break when he was asked to write the screenplay for THE FLY, the horror classic starring Vincent Price. He went on to script: WATUSI, THE SATAN BUG, 633 SQUADRON and THE GREAT ESCAPE, which earned him a 1963 Writers Guild Award.

Besides directing WHERE'S JACK? Clavell was writer-producer-director on FIVE GATES TO HELL, WALK LIKE A DRAGON, THE LAST VALLEY and TO SIR WITH LOVE, starring Sidney Poitier. The latter, which was made for $625,000 and grossed more than $25 million, remains one of the most successful films of all time.

The road to becoming a celebrated author began during the Hollywood screenwriters' strike of 1960. Encouraged by his wife, Clavell decided to write a novel (his first try) about his POW experiences. Three months later he finished the first draft of *"King Rat"*, which went on to become a huge critical and commercial success.

Clavell remembers: "There were a lot of rude buggers around in those days saying things like, 'Sure, so you wrote one book. But can you do it again?' " The skeptics were silenced when his second novel, *"Tai-Pan"*, was published in 1966. The epic story about the birth of Hong Kong was another international best-seller.

With the 1975 publication of *"Shogun"*, his master work about feudal Japan, he was firmly established as one of the world's true literary superstars.

Clavell is currently finishing a new novel, *"Noble House"*, which will be published in 1981. Set in contemporary Hong Kong, it's the first in a series of interlocking novels he is tentatively calling the *"Asia Saga"*. Along with his previous books—and two more to follow—he hopes it will tell (in fictional terms) the history of Anglo-Saxons in Asia.

In the interview that follows, conducted at Paramount Studios by *American Cinematographer* Editor Herb Lightman, Clavell talks about the filming of SHOGUN, not simply as author of the original novel, but from the point of view of his role as executive producer on the project.

COMMENT: During my several trips to Japan I have found myself more and more caught up in the history of that country—the Old Japan that one still sees somewhat preserved in places like Kyoto, for example. All of that came together for me in SHOGUN. The book summed up all the feelings I've had when touring such places. It crystallized the philosophy of the Japanese as expressed in their old architecture, the dress, the ceremonies and the rituals. All of it came magically to life in SHOGUN. It staggers my mind to think of the amount of research you must have done in order to write it.

JAMES CLAVELL: Well, I had lunch not so long ago with about six professors of Japanese history and they told me that up until three years ago it was hard for them to get any students at all. Now, suddenly, their classes are absolutely oversubscribed and 100 percent of the reason is that these young people have read SHOGUN. They also told me that for many of their students, SHOGUN was the first novel of any size that they had ever read—that it had encouraged them

to read. A number of my own friends have told me that they passed SHOGUN along to their children and suddenly it has opened their eyes to reading. But in any event, these people kept asking me how I researched the book, how I knew about all the detail that went into it. Finally, when I was backed into a corner, I ended it all by saying, "You see, I was there." One lady took me seriously and said, "Thank God! I'm glad you believe in reincarnation." And she went away quite happily.

COMMENT: Just dragging the kids away from the TV set long enough to read a book is a major accomplishment. Obviously, it would take something as dynamic as SHOGUN to do it.

CLAVELL: A friend of mine told me about someone he knew who had read SHOGUN 25 times, and he had a friend in California who had read it 15 times. They play a game. One calls the other up and reads the first line of a paragraph. Then the other has to continue on with the paragraph. According to my friend, one of those guys is Richard Dreyfuss, the actor. If you see him, ask him about it.

COMMENT: I shall ask him the next time I see him.

CLAVELL: If he's such an aficionado, tell him to give me a call and I'll show him part of SHOGUN. By the way, I think that SHOGUN in film form is absolutely terrific. We've got a wonderful script by Eric Bercovici and Jerry London's direction is marvelous. The casting is perfect—I admit I had a hand in it. Richard Chamberlain is superb in the role of Blackthorne, apart from being a nice person. It is due to him, really, that we finished on time. A lot of the actors who came back told me that if it hadn't been for him and his professionalism we would still be shooting there. Yoko Shimada, who plays Mariko, is a stunner. Mifune, of course, is Mifune—impeccable. And we used a lot of those wonderful English actors that I've worked with in the past at the National Theatre and the Royal Shakespeare. The final result is very good. It's racy and it's erotic, but there's no vulgarity in it.

COMMENT: I'm very gratified to hear that you're so happy with the result. Most always, authors whose novels have been transformed into films are somewhat less than happy. They really feel that their work has been distorted or actually destroyed or certainly not done justice to.

CLAVELL: Well, I feel good about it because, number one, I am a writer/producer/director/filmmaker in my own right. I've written and produced and directed five features, and I've adapted other people's work—so I know the problems involved. This is my first experience as an executive producer, but I've learned from my peers, the Japanese, about compartmentalization. Of course, SHOGUN the book cannot be compared to SHOGUN the film, other than that it is similar. One of the problems with most authors is that they get involved with the immortality of their own words. Well, my ego is sufficiently strong so that I'm not married to the words. I'm delighted that most of the words and the important sequences are on the screen, but it has been changed around by Bercovici who, in his way, is a magician, too.

QUESTION: How involved were you actually, on a day-to-day basis, as executive producer?

CLAVELL: I had a large measure of control over this project, so that if it's good I can be proud of it and if it's bad a large proportion of the responsibility is mine. After all, I did approve the screenwriter and I did approve the producer—in fact, I got Eric to be the producer—and I did approve Jerry London as director. I've seen all the footage and been involved in the editing, but I've tried to do it from a professional point of view. We've had a system of agreement between the three of us, which was that a two-vote was unanimous. I set that up beforehand because, on certain things, I wanted to back off. Like, we have a problem now about whether we should make a cut in one of the sequences and I've backed off and left that decision to them, because they are the practical people who are doing the line stuff. I'm just sort of overall controller, executive producer. From my point of view, this method has worked wonderfully. The people who have seen any of the stuff have enjoyed it marvelously. It is the book in a way, but now it's Blackthorne's story. The 12 hours for television tell the story of an Englishman who goes to Japan and be-

Continued on Page 926

James Clavell, author of the novel SHOGUN and Executive Producer of the 12-hour television version. He is the "compleat filmmaker", having functioned as writer/producer/director on several features films. He extended *carte blanche* to screenwriter/producer Eric Bercovici and Director Jerry London in transforming his novel for the screen.

HOW WOULD A FEATURE SHOT IN SUPER-16 COMPARE WITH ONE SHOT IN 35mm ON A THEATER SCREEN?

Amazing results of "acid test" indicate that the day of low-budget feature filming in the Super-16 format may finally have arrived

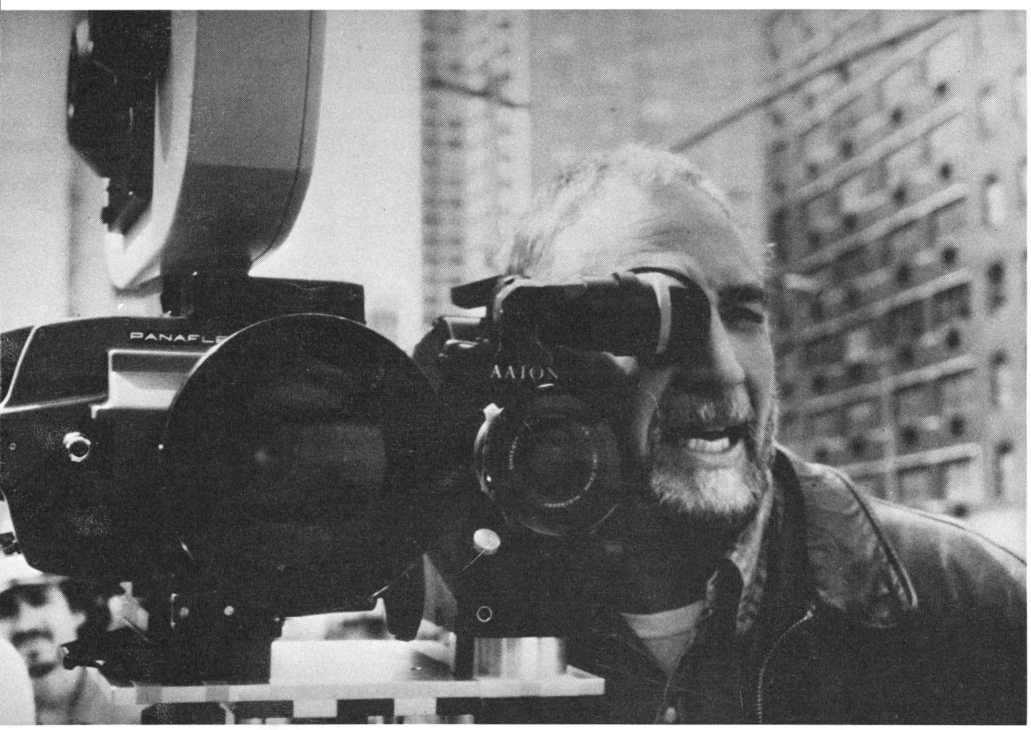
By IRWIN YOUNG

The ultimate dream of most filmmakers is to make a feature motion picture film.

This dream would have a greater possibility of coming true if he were able to shoot his film in 16mm and, through the blowup process, make 35mm prints for theatrical release. The economy and flexibility of 16mm would free his creative abilities.

In the past, some successful features have been made on 16mm, but they were rarely considered important films. Most filmmakers felt that the 35mm print had that "blowup look", easily discernible from a film shot in 35mm.

This "blowup look" was the result of enlarging a 16mm image beyond the capability of the available film emulsions. Magnification achieved a larger image, but the larger image appeared empty of picture information. What was needed was a finer grain camera film with better resolving power and sufficient speed and latitude. In 1974, Eastman Kodak introduced a new color negative film, type 5247/7247, the result of new emulsion technology. It had the same speed as its predecessor, 5254/7254, but it was a sharper and finer grain film. These improvements were very noticeable when the two films were compared in the 16mm format. The possibility that this film could enable features to be shot on 16mm and blown up to 35mm excited me.



Director Robert Young checks shot through viewfinder of the Aaton Super-16 camera, mounted side-by-side with the Panaflex 35mm camera on a special plate which made possible filming by both cameras under identical conditions. (BELOW) Director Robert Young and Director of Photography Peter Sova discuss set-up of an interior shot, while the author observes.

To demonstrate the quality of blowups, I asked my brother, Robert Young, to photograph a series of scenes on 7247 16mm color negative. Bob is a filmmaker and my partner in Du Art Film Laboratories in New York, a company founded by our father, Al Young. We both shared a desire to make feature films. For the test, we photographed and composed at a 1.85:1 aspect ratio with the same subject size, a series of exteriors and interiors under varying lighting conditions in standard 16mm and Super 16mm. Both the standard 16mm and Super 16mm were blown up to 35mm CRI and framed at a 1.85:1 aspect ratio, from which we made a demonstration reel to be projected wide screen.

Over the last four years, this 35mm print has been viewed by more than 5000 people through SMPTE Meetings, Du Art Seminars, film producer organizations and filmmaker associations. A number of independent filmmakers were impressed with the quality of our standard 16mm blowups. Claudia Weill's GIRL FRIENDS, distributed by Warner Bros., was one of many features shot in standard 16mm 7247 color negative that we blew up to 35mm.

The blowup of the Super 16mm footage looked better than the blowup from standard 16mm, because the picture area of Super 16mm at a 1.85:1 aspect ratio is about 45% larger than the picture area of standard 16mm at the same aspect ratio.

Super 16mm achieves a wide-screen format on single-perforated 16mm camera film by extending the picture area into the unperforated area of the camera original. Extending the picture area of the 16mm original requires modification of cameras, laboratory equipment, editing equipment and projectors and, since

(LEFT) Cast members Tony Azito and Allen Shawn rehearse, while the crew sets up for the shoot. (RIGHT) Director of Photography Sova sets up to film a cutaway from the master shot. Exterior long shots and closer shots had previously been filmed in order for the test to cover a full range of shooting conditions. A complete production crew and much care were employed to make the test as close as possible to feature filming conditions.

such modified equipment was not readily available in this country, it was difficult for a filmmaker to make a feature in Super 16mm.

The June, 1970 issue of *American Cinematographer,* which contained a number of articles on Super 16mm, aroused my interest. One of the papers was written by Rune Ericson, a Swedish cinematographer, considered to be the Father of Super 16mm. Rune had photographed the first Super 16mm feature and the article covered many of his pre- and post-production problems.

Rune's Super 16mm feature was shot on 7254 16mm Color Negative and blown up to 5249 35mm CRI. 7254 Color Negative with an exposure index of 100 had enough speed and latitude, but was much too grainy. At that time, the other 16mm camera originals available for blowups were commercial Ektachrome 7252 with an exposure index of 25 and high-speed Ektachrome 7242 with an exposure index of 125. 7252 ECO was fine-grain enough, but didn't have the speed or the latitude, and high-speed Ektachrome had the speed, but was too grainy and limited in latitude. The additional area of information added to these 16mm originals by using the Super 16mm format added to the quality of the blowup, but not enough to make it worthwhile to the filmmaker, considering all the equipment modification. Super 16mm made little impact on feature filmmaking in this country.

Over the years, I became friends with Rune Ericson because of our mutual interest in Super 16mm. Rune had gone from Cinematographer to managing a film laboratory and is currently the Swedish distributor of the Aaton camera. At the FILM '77 Conference in London, Rune enthusiastically showed me the Aaton camera with its Super 16mm capabilities. The camera was interesting, but I still wondered whether the improvement in quality justified making all of the necessary equipment modifications.

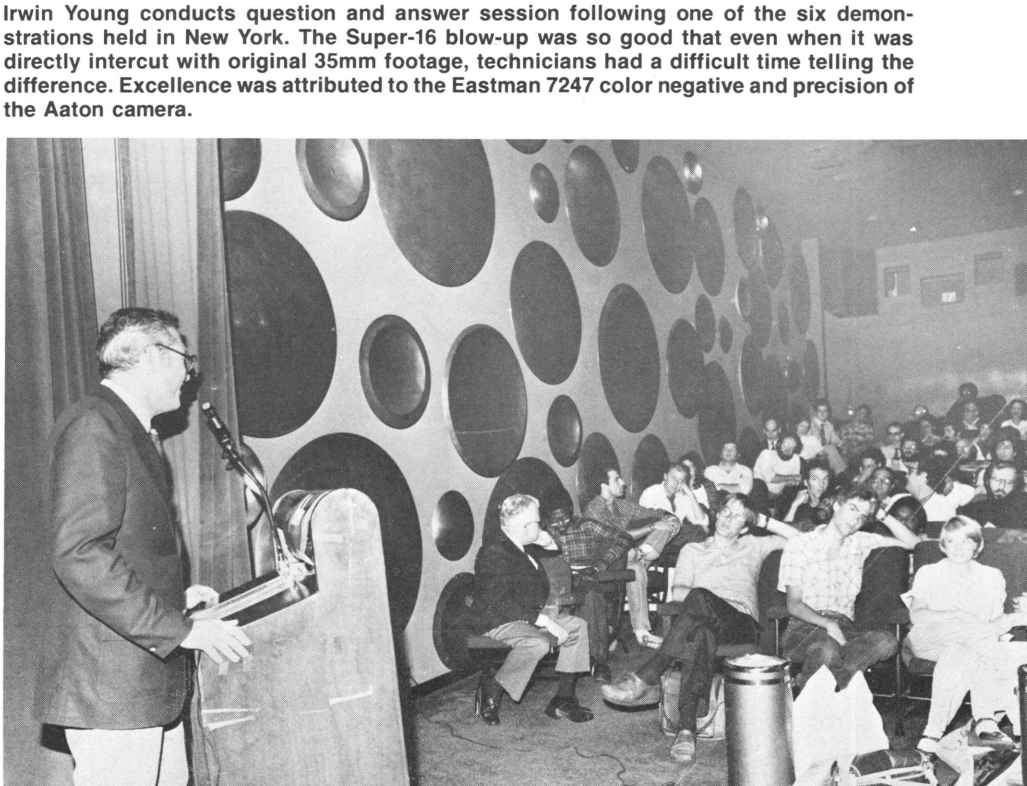
Late in 1978 I was called to our screening room to look at a 35mm blowup made from a Super 16mm original. What I saw in the screening room seemed incredible. It was hard to believe that the original was not shot in 35mm. I learned that this blowup footage was to be intercut into a 35mm feature called CLOUD DANCERS, directed by Barry Brown, who lived in Los Angeles. I felt it was important to see him and learn what he knew about Super 16mm. At that time, my brother, Bob, was on the coast completing RICH KIDS, a film he had directed for Robert Altman. I thought this would be a good time for both of us to visit Barry Brown.

CLOUD DANCERS is a story about airplane stunt pilots. Barry's background as a cinematographer and MIT graduate was ideal for this project. Some of the aerial shots Barry wanted required a camera to be specially mounted on the airplane. 35mm cameras were too large and heavy. To solve the problem, Barry had specially built a Super 16mm camera for which he carefully selected the lenses. He proudly showed me all this equipment. Later, I was able to see a print of CLOUD DANCERS in which the blowup negative was intercut with regular 35mm negative. I could not distinguish in the aerial sequences whether the original was Super 16mm or 35mm, but since most of the Super 16mm footage consisted of closeups shot with prime lenses, I wondered whether Super 16mm would hold up in the variety of scenes required in feature filmmaking.

I felt it was time to do a test comparing Super 16mm directly to 35mm. In order to do this test properly, we had to buy our own Super 16mm camera and lenses. After careful consideration, we pur-

Continued on Page 934

Irwin Young conducts question and answer session following one of the six demonstrations held in New York. The Super-16 blow-up was so good that even when it was directly intercut with original 35mm footage, technicians had a difficult time telling the difference. Excellence was attributed to the Eastman 7247 color negative and precision of the Aaton camera.



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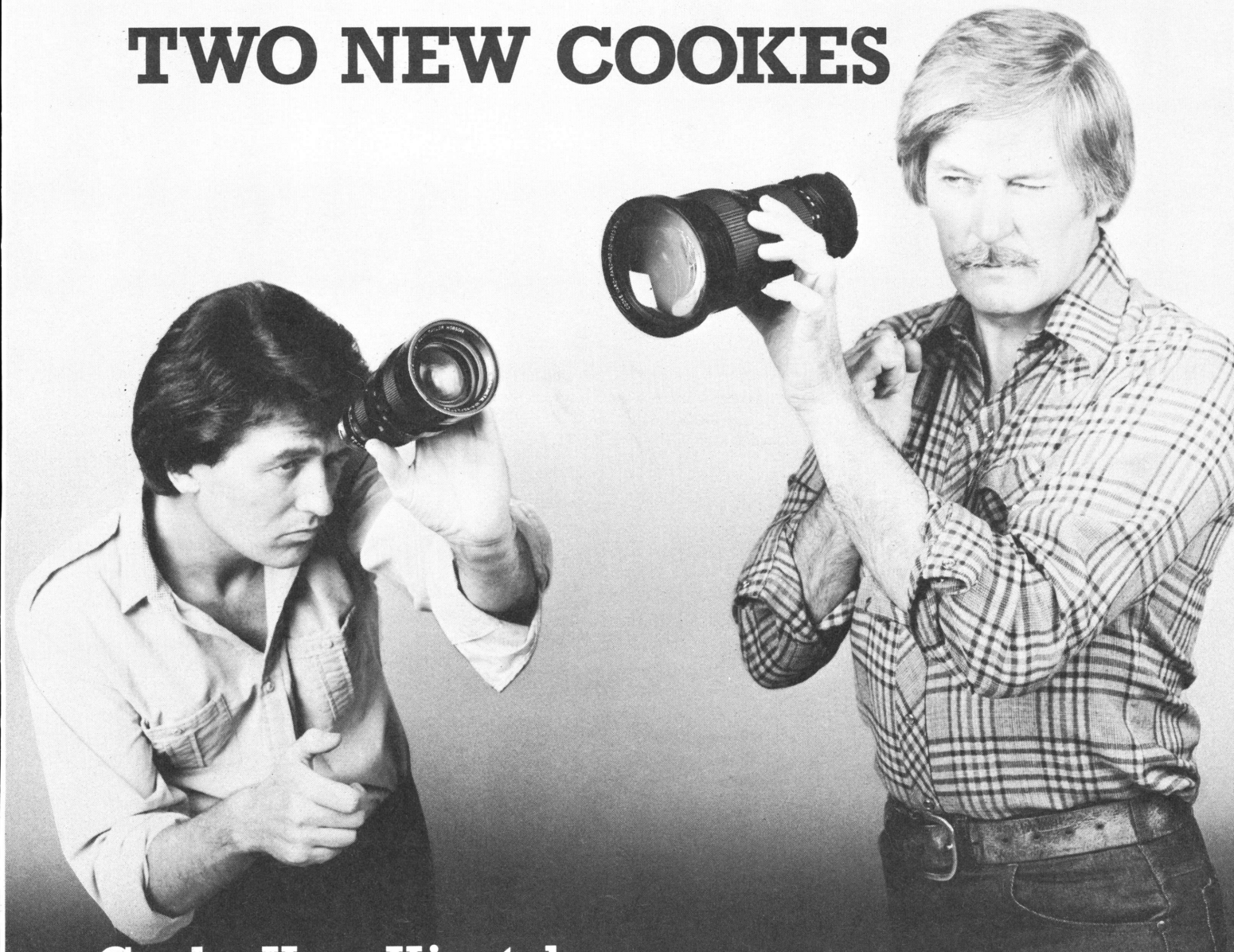

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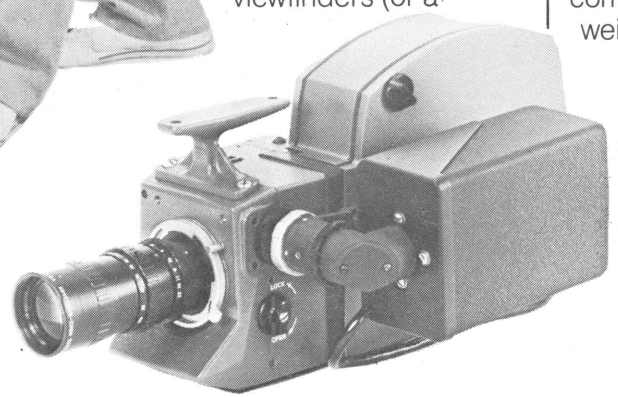

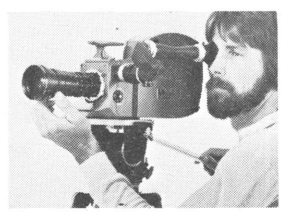

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A TRACK SYSTEM FOR SELF-TRACKING DOLLIES

Building a self-tracking pipe dolly, utilizing plastic sewer pipe, offers the filmmaker the use of an inexpensive lightweight dolly system

By EDWARD R. DUPRAS

In the past few years many people have been building self-tracking pipe dollies. The idea is that wheels set at 90° to each other and 45° to the ground will pull the pipe into line as the dolly passes over it. It offers the filmmaker an inexpensive lightweight dolly system. The ABS plastic sewer pipe itself comes in 10- and 20-foot lengths. Longer dolly shots mean that the pipe has to be joined in some way. However, the design philosophy of pipe plumbing is concerned only with the flow characteristics of the pipe and the fittings. So all fittings are designed to go on the outside, creating a few bumps; that created our design problem.

The design for the joiners was arrived at several years ago. First I tried wood and then metal sleeves inserted inside the pipe. They tended to come apart. Even gaffers tape couldn't hold the pipe together. Tapered wood inserts either jammed or deformed the pipe, plus the cost of turning the joiners on a lathe made that unfeasible. Finally, I came across the right tool to compress any type of expandable joiner, the chain vise strip pliers, No. 20R. After testing several shapes and lengths, I came up with these designs. They hold fairly fast. It usually takes two persons to twist the pipe down to the last half-inch or spread it to disassemble, so the danger of the pipe slipping apart during a shot is nil.

A joiner for 1½" I.D. pipe should be 8 inches; a joiner for 2" pipe measures 12 inches. Using a miter box, cut on 45° angle, then cut the other end at 45°, the longest part of the pipe joiner should be either 8 inches or 12 inches for a 2" I.D. joiner. On the short side, rip (cut) a strip 1¼" wide from a 1½" I.D. joiner. For a 2" joiner, cut out a 1½" strip. Be sure to use a slow moving jigsaw or the plastic will melt and fuse behind the jigsaw. This is no problem with a hand saw. Then trim all flash off and sand down all cuts.

The ends of the pipes should be dressed. Cut the pipe in the miter box at 90° or use a pipe cutter to get a straight end, file and sand it down to a smooth finish.

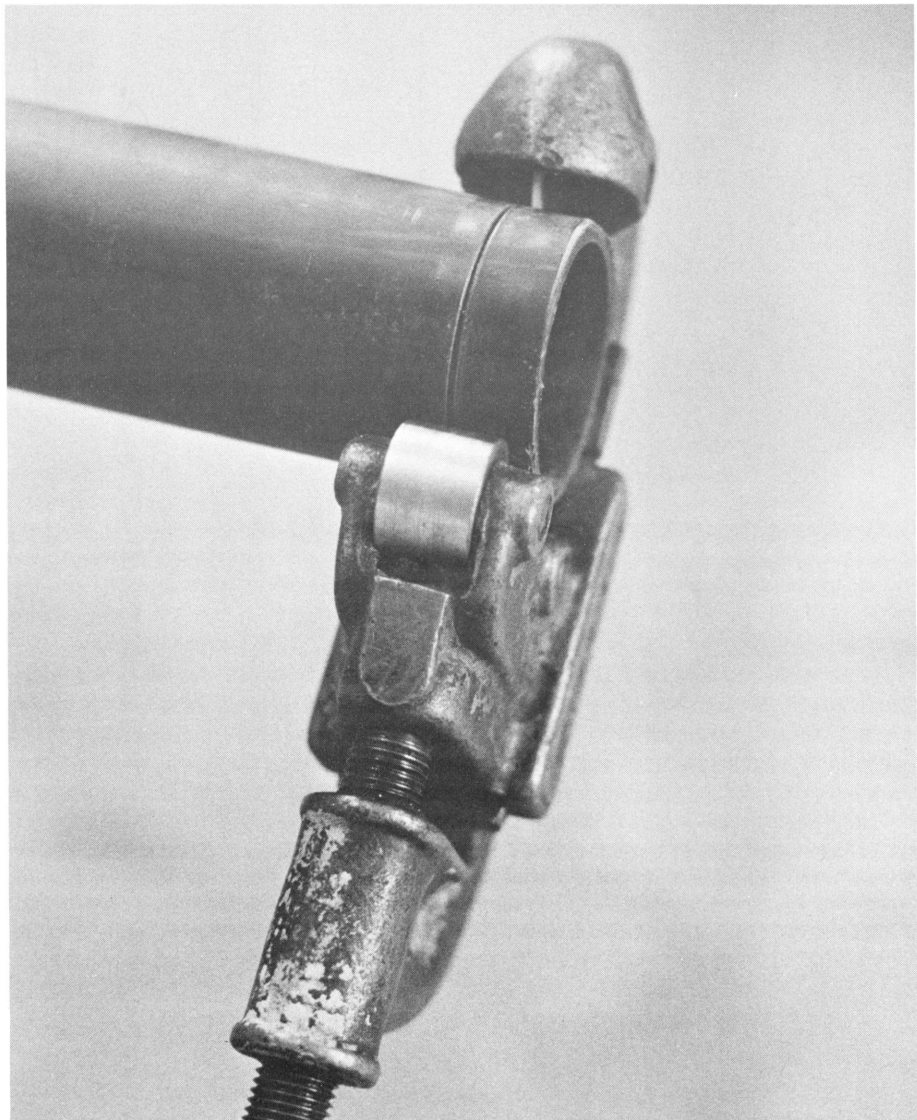
To join the pipe, place the chain around the joiner and clamp it together as close together as possible. Insert it into a pipe end about midway, then add next length of pipe and get them about ½-inch apart. Release the chain vise grips and remove them. One man can lay out the track but it will take two to snuggle up the pipe so the gap is as small as possible. It will also take two people to twist the pipe apart. When using pipe, on a floor or pavement, the area should be swept clear of small gravel and trash. A length of carpet runner laid under the tracks can muffle any sound. On slight inclines, the pipe should be sandbagged to prevent shifting. A board with ABS end caps nailed down can be used as a tie at both ends to keep the pipe at the right width for long runs.

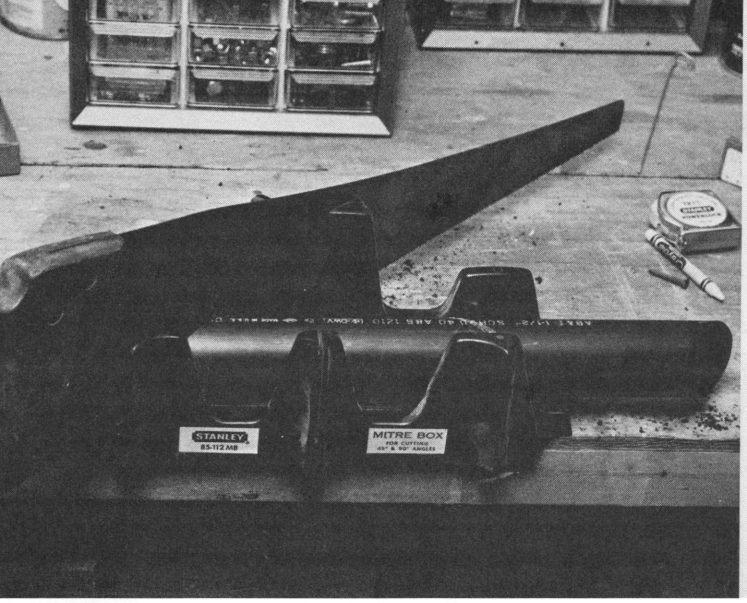
ABS, or black plastic sewer pipe, 1½", 2", 3" I.D. of schedule 40 wall thickness should be used because of its strength. When I tried to find out relative strengths of pipe through a local distributor, he didn't have any data on relative strength. However, he did recommend that P.V.C. pipe not be used. It's not as strong and deteriorates in one year just sitting in the sunlight in the distributor's storeyard. It falls apart when struck, and that's after a year in Seattle's rain-sodden climate. Aluminum pipe can also be used with the same ABS joiners, since the pipe standards are the same. It's just that the cheapness and disposability of ABS plastic pipe is lost.

In practice, I keep a set of 10-footers stored flat on a shelf in the garage. But that's a little hard to travel with. A former employer still uses a kit of shorter pipes in a tripod case. The pipe and joiners have stood up to five years of in-house and rental use. The 1½" pipe rides inside the 2" pipe, and 12 sections 54" long are packed inside a large 58" x 10" tripod case. The 1½" pipe is used for one side of the track and the 2" on the other side, so he carries 54 feet of track on out-of-town shoots. That saves the hassle of buying new pipe in every town.

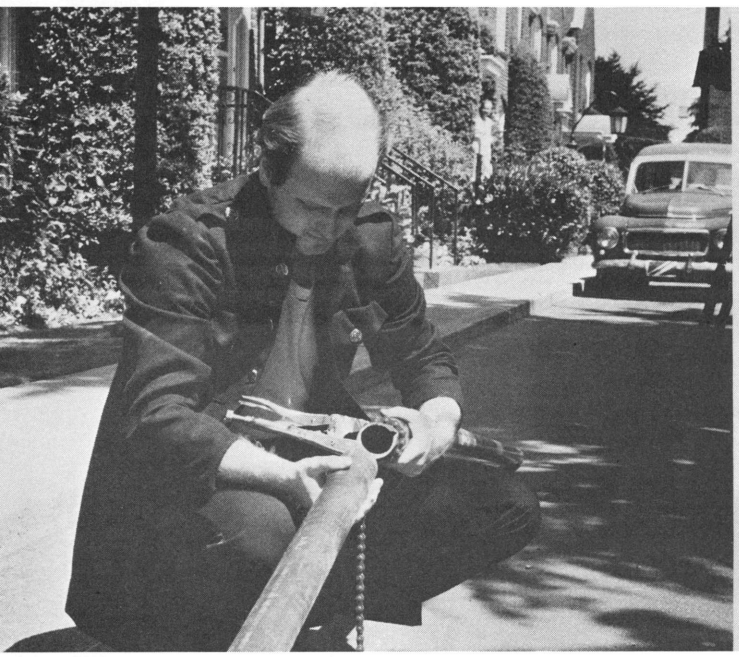
The development of a cheap, durable joiner system, a system of traveling pipe-track, and a lightweight self-tracking pipe dolly has put the dolly shot within the reach of an average filmmaker. And as one customer put it, it's great just having it in the van ready to use when you want it. ■

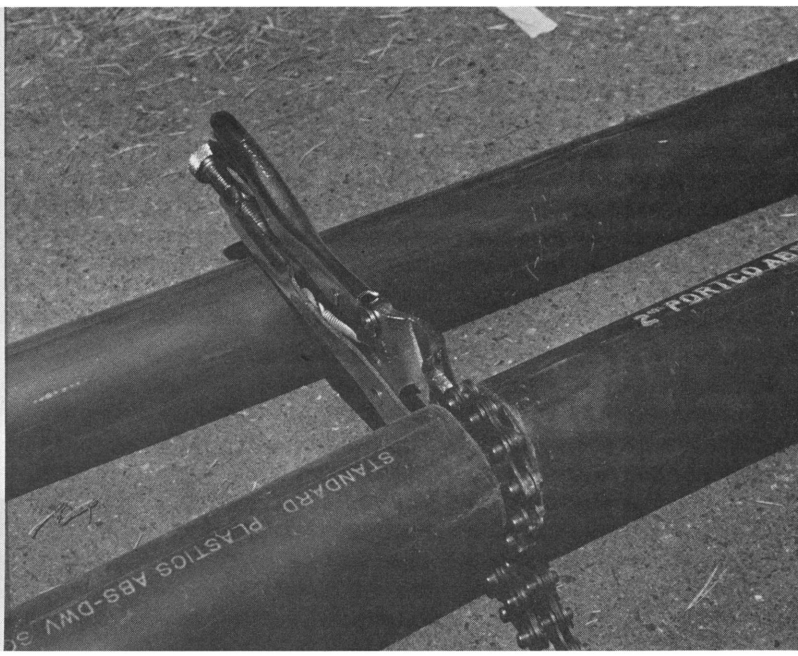
Cutting the track ends with a pipe cutter guarantees a good-fitting butt cut when trimmed and sanded. The ABS plastic sewer pipe comes in 10-foot and 20-foot lengths. Longer dolly shots mean that the pipe has to be joined in some way other than with the standard fittings that are designed to go on the outside.



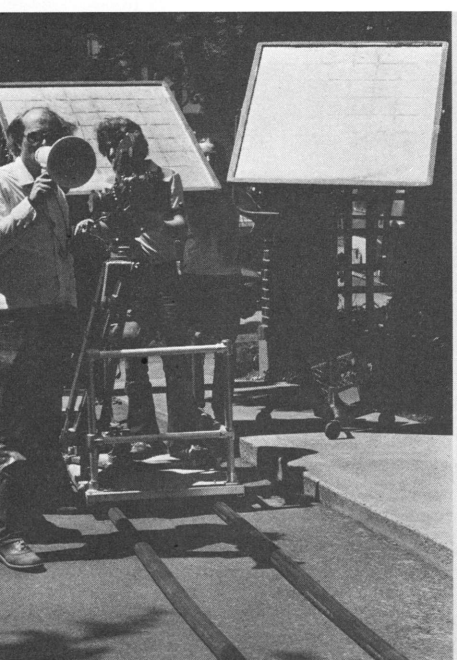


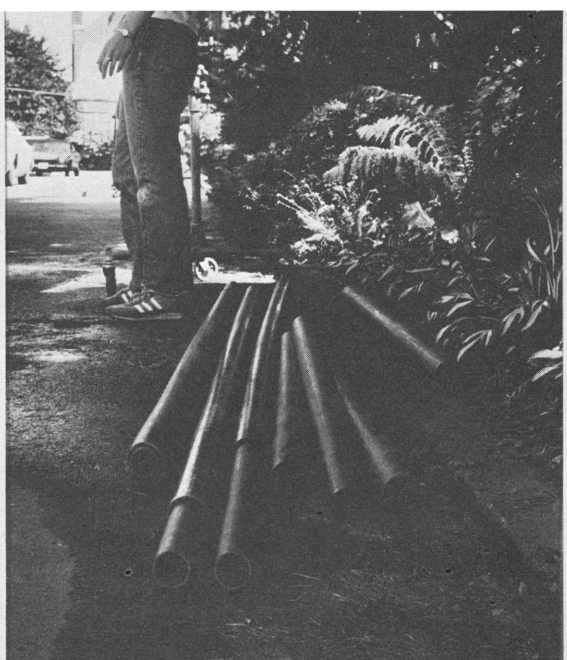
(LEFT) The pipe joiners are first cut at 45-degree angles in a mitre box. (RIGHT) Once the ends are cut, then rip (cut lengthwise) a 1¼ to 1½-inch wide strip out of the joiner at the narrowest point of the bevels. After trimming and sanding, the joiner is ready for use. (BELOW LEFT) On location the joiner is compressed with the Vise-grip chain pliers and inserted evenly into each section of "track" by one man. (RIGHT) The chain pliers are removed and the pipes are twisted together the remaining distance until both butts meet and form a tight joint. This part of the operation will usually take two persons.





(LEFT) A self-tracking dolly in use on a local feature. The joints in the pipe track can barely be seen in the lower foreground. (CENTER) When two different sizes of pipe are used, they can store easily inside of each other. (RIGHT) This set of track stores in a 60-inch tripod case. The ten lengths each of 1½-inch and 2-inch inside diameter pipe makes up into 54 feet of track. This set was made up in 1974 and has seen years of in-house and rental uses, both locally and out of state.





The Arriflex 35 Type 3: It's a 35-2C with all the add-ons already added on.

A new 35-2C with all the modifications costs about the same. But with the 35-3, you also get a flat base, a registration-pin movement, up to 100 frames per second and 1000 foot magazines.

Seen here with rotating finder and 1000 ft magazine.

This looks as though it may become another classic ARRI workhorse. The proven features of the 35-2C, we kept. The things that needed it, we updated.

Magazines old and new.

The 35-3 uses the standard 200 and 400 foot magazines from the 35-2C. Pre-threaded, gear-driven magazines that you can change in less than a minute. And there's a new 1000 footer, made of lightweight Lexan.

One camera does it all.

You no longer need go out with several cameras and a boxful of motors. The Type 3 with its DC crystal motor will give you 5 to 50 fps built in, 50 to 100 fps with the HSU accessory. And there's a 24 fps out-of-sync warning visible in the viewfinder.

Up to 100 fps in less than a second.

Less than a second after you switch on, the 35-3 is up to speed.

Works with most 35BL accessories.

It's the most up-to-date M.O.S. camera in the world. Its body weighs 12 lbs.

At 100 fps, that's a lot of film saved. Digital speed and footage readouts. And you *know* it's running at the speed you've dialed – so your mind is free to concentrate on the action.

Registration-pin.

At 24 fps the Type 3's registration-pin/double-claw movement gives you image steadiness that's within optical printer standards. And you can't buy a camera with a steadier movement at 100 fps. There's a fixed gap film channel – no pressure plate except right at the aperture.

See what you get.

They pay you to *see*. This camera's particularly bright viewing makes that easier. You can use any ARRI mount lens with the 35-3 – plus the ARRI Follow-focus system and the Bridgeplate/Matte-box system. Various viewfinders are available, including deanamorphic. The shutter always stops open. And there's a video adapter.

Aspect ratios.

The 35-3 accepts the standard 35-2C groundglasses; and various aperture plates, from Academy to Cinemascope. Versatile.

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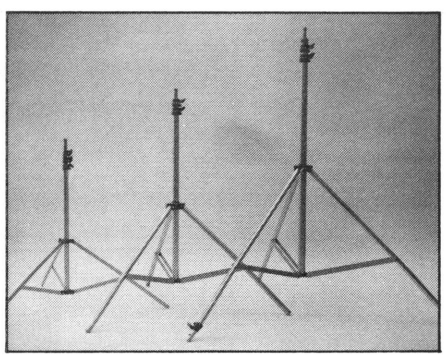
The classic, 5 pound, Lowel KS Stand supports all of our lights, substantially.

We don't take a stand lightly.

In 1967, our remarkable KS stand set new standards for ruggedness, weight (under 5 pounds), ease of operation and safety. Not surprisingly, it has been internationally admired—and imitated. The KS, however has extra thick-wall tubing, high strength, heat treated aluminum, and generously overlapping sections. After thirteen years, it's still the state-of-the-art stand.

Now we offer two additional versions of it: the small Omni-stand, and the large Grand Stand. Both outstanding. When it comes to issues like high-strength-to-weight-ratios for location equipment—we take a strong stand.



For equipment and kits see an authorized Lowel dealer. For brochures contact us. Lowel-Light Manufacturing Inc. 421 West 54th St., N.Y., N.Y. 10019 (212) 245-6744. Telex: 666597 UW. West Coast: 3407 West Olive Ave., Burbank, Ca. 91505 (213) 846-7740

lowel®

"SHOGUN" DIARY
Continued from Page 889

Nagashima. Using Nagashima for seaport of Anjiro and Osaka. Perfect area surrounded by water and high cliffs. Building a fishing village and another village for the capital city of Osaka. Saw the galley ship they're building.

Back in Tokyo, met Japanese actresses and saw Samurai film. Went to several TV studios here. A lot of production going on, most of it on tape.

Arrived in London, met with Maude Spector, who is casting the English crew and the Portuguese priests.

The 7th and 8th hours of the script are in—dynamic. We don't have the actors yet, but we're going ahead with making the wardrobe because of the time factor. Filming starts June 4th.

Today, casting the English actors for Blackthorne's crew. Tomorrow—will be able to fit them into various slots. Casting the priests and Rodrigues. Leaving for Los Angeles, on Sunday, April 22nd.

Back in Los Angeles. Richard Chamberlain has been signed.

MAY—In San Francisco launching the *Golden Hinde,* the ship we are going to use in the picture as the *Erasmus.* The Navy band and a fire boat accompanied the *Hinde* out into the San Francisco bay.

Going through the script with Eric Bercovici. Leaving on the 12th of May for the final trip to Japan. Selected both editing teams. Jim Heckert will go with me to Japan and Don Rode will cut the feature in Los Angeles.

Arrived in Japan on May 12. Immediately started working on the production board.

MAY 15—Himeji Castle location is questionable. The tank in Tokyo where we are shooting the storm and the mock-up of the ship can't be shot past 10:00 P.M., but the sequence has to be shot at night. There is no way we can shoot two hours a night on these sequences and finish them. Schedule is 20 days short. With the movement of troops, ships and logistics what they are, there is no way we can shoot in 120 days. A big budget problem.

MAY 16—More casting, rearranging the board and editing the script to get on budget. Worried about getting out of Nagashima on time because of typhoons. Strong winds could blow our sets apart. Andy Laszlo seems to be having trouble getting a crew together. Putting the ships in the tank and testing them.

Met Toshiro Mifune, who is playing Toranaga. At this point, the contract has not been signed for Mifune or for Judy Ongg, who will play Mariko. It is two weeks before we start. May delay start on June 4th.

I looked at the first set, the fisherman's house. Checking wardrobe today—sketches. Met Frankie Sakai, who is playing Yabu. Still negotiating with leading lady, Judy Ongg.

Eric has done a terrific polish on the script. We lost the heavy scenes that would cost us time and money. Reworking the board, closer to budget.

Did our 1st screen tests—40 tests—found some very good Japanese actors. The crew works well. We tested on video tape.

Six days before shooting and still a problem with shooting in the tank at night.

The Japanese assistant directors are terrific.

Finished the screen tests. Found Kiku. Biggest problem is, we are one week away from shooting and don't have our leading lady. Mifune's deal is set. When you book actors in Japan they get other jobs during the time they aren't scheduled to shoot with you. Our schedule, as long as it is, if we slip a day or two and want that actor, he may not be available.

Mifune has helped solve one of our problems, shooting in the tank at night past 10. He has written letters to all the neighbors explaining how important SHOGUN is to Japan and asked for their cooperation.

Still do not have a final budget. Board is now 133 days. Our lead actress is set. We got Judy Ongg.

JUNE—2 days before shooting. Today is the press conference. Judy Ongg has pulled out of the part. Press conference went very well. Big story is—Judy Ongg backed out with two days left before shooting. Her manager couldn't make our schedule work for her. Going to be tough to find someone who can speak English and Japanese, look beautiful and act.

Tomorrow is 1st day of shooting a 7-month shoot.

DAY 1—Went well. Crew is blending. Communication problems. Got 25 setups today. Richard is marvelous. Japanese cast is good. Problems with makeup matching the skin tones to the wigs.

DAY 2—Shot Blackthorne waking up in Japan and the Japanese lady, Onna, is terrific.

DAY 3—Outside for the 1st time on the back lot. 70 extras. Good scope. Saw 1st day's dailies today.

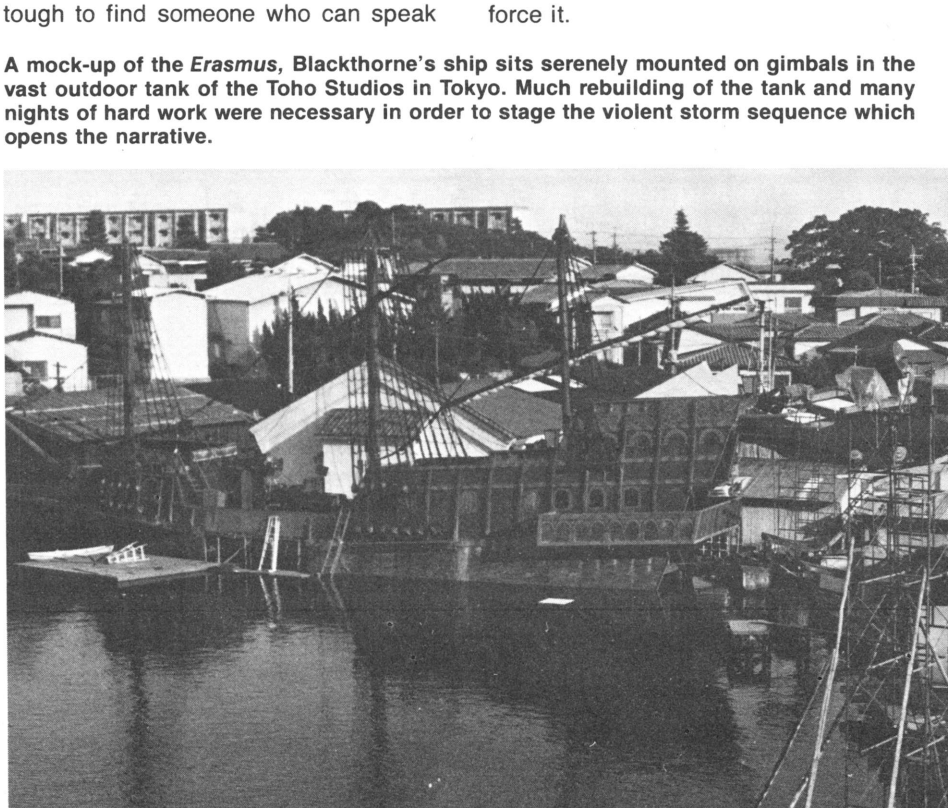
DAY 4—Finished our work at 2:00. Shot another scene. Started raining so we quit at 4:30. Still some budget problems. Don't have our leading lady yet.

DAY 5—1st week of shooting done. We beat the rain. Shot the 1st week's work plus an extra 2½ pages. Film seen has been excellent and Richard Chamberlain is a gem. Still no leading lady. Next week will be working with the crew of the *Erasmus,* all the English actors.

DAY 6—Rained. Cover call. Special effects test. The gimbal in the tank broke on the rehearsal run.

DAY 7—Rain. Cover set. Shot the pit sequence and our 1st sequence of the mock-up of the ship. Trouble with the effects. Trying to figure out how to beat the rain. The gimbal broke in the tank again. We haven't started shooting the tank yet, but they put the galley ship in and started rehearsing the 32 rowers. The weight broke it. Had to pull it out with a gigantic crane. Going to put new steel in to reinforce it.

A mock-up of the *Erasmus,* Blackthorne's ship sits serenely mounted on gimbals in the vast outdoor tank of the Toho Studios in Tokyo. Much rebuilding of the tank and many nights of hard work were necessary in order to stage the violent storm sequence which opens the narrative.



DAY 8—Still on schedule. Shot the scene where Omi throws the fish on the crew. Weather held out. Tomorrow—Yabu for the first time.

DAY 9—Filmed in the rain. Shot sequence of Yabu's arrival. Frankie is very good. Fighting the rain all day. 130 extras today, four cameras working.

DAY 10—June 15, the second week, the rain cleared. 1st night shooting. The 2nd week, 1 day ahead of schedule. Still trying to find Mariko. Communication with the Japanese still has some bugs in it. Next week we begin in the tank. The storm sequences.

DAY 11—Interior of mock-up of the ship. Very difficult because walls wouldn't come out and the motion of the ship meant trouble keeping the camera within the set. 1st day with Rodrigues, John Rhys-Davies. Next four nights, the storm sequence with the galley in the tank.

DAY 12—Shooting with the galley went well. A few mechanical breakdowns, but overall the effects of the ship and the lightning, the crew, the rowers were terrific. Shot 8½ pages of master. Sunlight starts coming up at 4 A.M. Means shooting time from 8 P.M. to 4 A.M.

DAY 13—Our 1st tragedy. Gimbal broke while we were shooting on the ship. The weight factor aboard the ship did it. Rocks to one side and back and we can't control it. No leading lady.

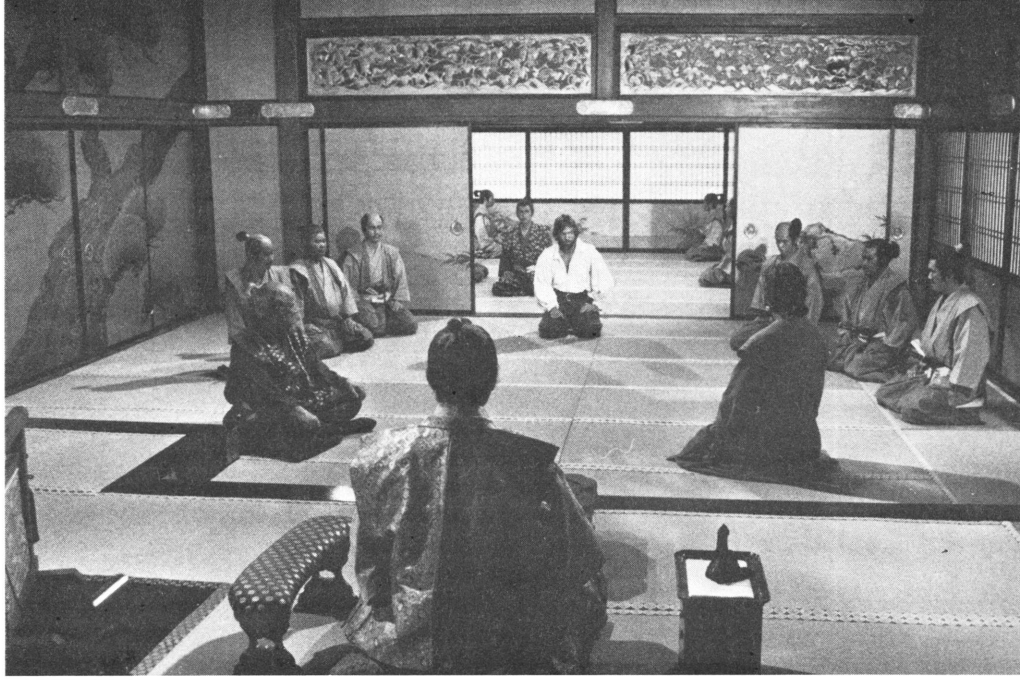
DAY 14—Tank repaired. Effects worked terrifically. Tomorrow, end of 3rd week. Tank is difficult, but sequence looks great.

DAY 15—End of 3rd week. Still ½ day ahead. Next week, the *Erasmus* in the tank.

DAY 16—Shooting on stage. John Rhys-Davies had eight pages of dialogue—brilliant. Dailies of storm sequence on the galley looked good. Still looking for Mariko, she works in two weeks.

DAY 17—On stage. Political problems between the crew and production manager. Reports from NBC—Dailies are excellent.

DAY 18—Ikuta Studio. Rain. Work in and out of rain. Had interior set. 1st day with Alan Badel, dell'Aqua and 1st day with Vladek Sheybal, Ferriera. Acting top-notch. Beat the rain. Shot 360-degree shot inside the mission.



The highly stylized architecture and decor of 17th-century Japanese castles were meticulously reproduced on sound stages of the Daiei Studios in Kyoto. The film company was prohibited from filming inside the actual castles, although the exteriors were filmed.

DAYS 19 & 20—Shot quarter deck of *Erasmus*. Opening of storm sequence. Held up for 1½ hours, cables got loose. After four weeks, one day ahead.

JULY 1, SUNDAY—Worked in cutting room, ran four sequences. A winner. A week from tomorrow, Mariko works. Haven't cast her. A week from Thursday, moving to Nagashima.

DAY 21—Shot in the pit the lightning bolt effect. Testing two girls for Mariko.

DAYS 22/23—Screen tests of Mariko. The last girl we tested got the part, Yoko Shimada. Hired her five days ahead of shooting. Tonight, miniature work.

DAY 24—The 1st of the feature scenes shot. Original script written for the feature. Forty pages of the script have to be shot differently than TV. Used Toshiro Mifune as Toranaga today and Yoko Shimada as Mariko.

DAY 25—The Black Ship. 100 extras. Difficult staging. 10 pages plus the feature version. Very difficult scene. Rain.

DAY 26—Rain. Trouble with special effects of the arrows.

IN NAGASHIMA, the fisherman's union is demanding $100,000 for us to film there. Japanese have offered $50,000. Went to Yokohama to meet the *Golden Hinde*. She sails from Yokohama to Nagashima. Prop man is leaving and our Production Manager. Bringing in a gaffer and electrician to help Andy Laszlo with lighting. Hotel accommodations are poor. I have seen the locations in Nagashima and the sets are terrific. Will shoot Bay and instead of having the primitive look, the water will be cluttered with fish traps. Nagashima is a nightmare brewing.

SUNDAY—The captain of the *Golden Hinde* made soundings to see how close he could bring the ship into the shoreline for Anjiro and Osaka. Picked locations for the Galley. On the water tomorrow. We took out two weeks work here in Nagashima and moved it to Kyoto, trying to beat the weather.

DAY 27—Seasick, rained all day and we got washed out.

DAY 28—Rained. Cover call.—Blackthorne and Mariko. Now 1½ days behind because of weather.

DAY 29—Icon scene on the beach. Problem with weather conditions that change very rapidly; we start shooting in the sunlight and clouds come, nothing matches, so we shoot masters over.

DAY 30—Raining again. Got lucky and it cleared. Shot big sequence of galley towing *Erasmus* at night.

DAY 31—Weather in and out, cloudy. Introduce Father Sebastio and Omi. Introduce Anjiro to Blackthorne for the 1st time. Beheading scene on the 24th. Hope the effects work.

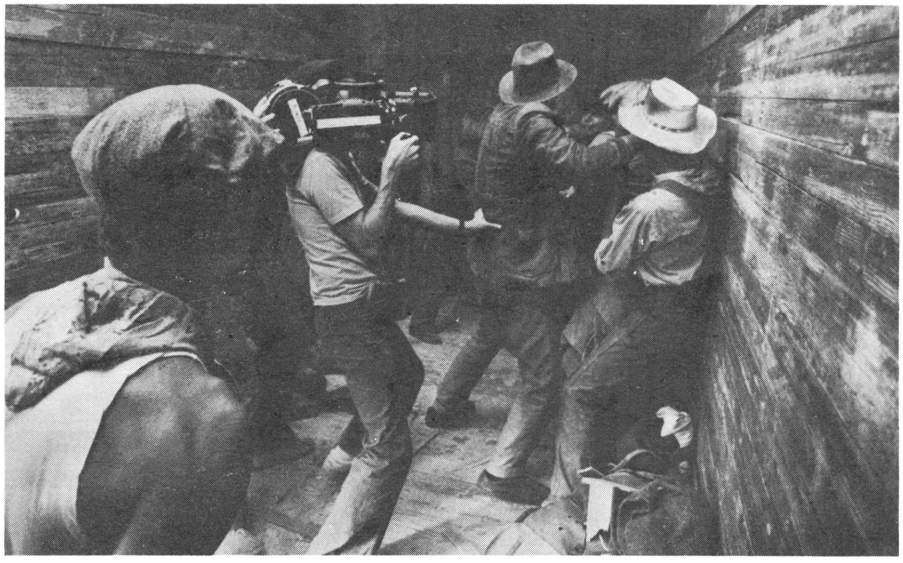
DAY 32—July 24th, The beheading scene. Effects worked well. Weather hot. Tomorrow, aboard the *Erasmus* with Rodrigues and Blackthorne.

DAY 33—Very hot. Aboard the ship. Crew

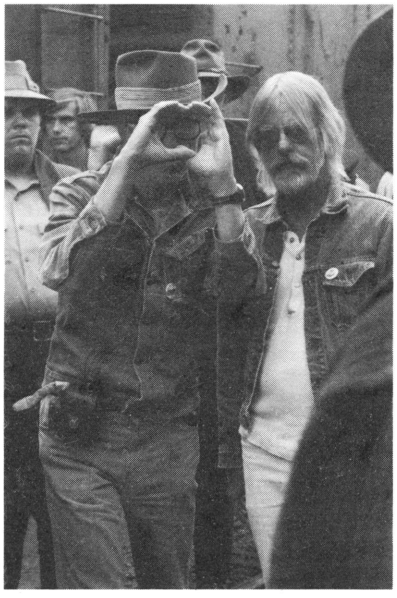
Continued on Page 930

Haskell Wexler talks about shooting with his 35BL.

Mr. Wexler has won two
Academy Awards for his cinematography.
He owns an Arriflex 35BL.



Haskell Wexler shooting *Bound For Glory* scene with a 35BL. "For hand-holding," says Mr. Wexler, "This is the best-balanced silent-running 35mm camera available."



Wexler with *Bound For Glory* director Hal Ashby.

"The extras were waiting around between setups, one day," says Haskell Wexler. "We were at Stockton, shooting *Bound For Glory*. The extras were dressed as migratory workers and their families."

Natural

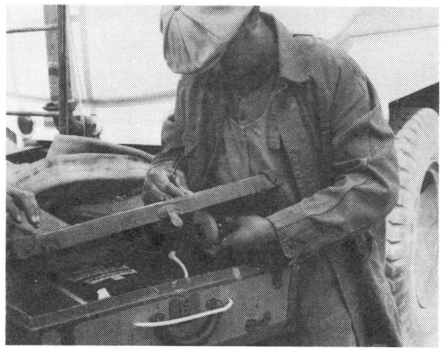
"They looked great—kids playing around—behaving naturally, because they *weren't* being photographed. So we set up secretly inside a tent, and picked things out with the long end of the zoom."

Suitcase

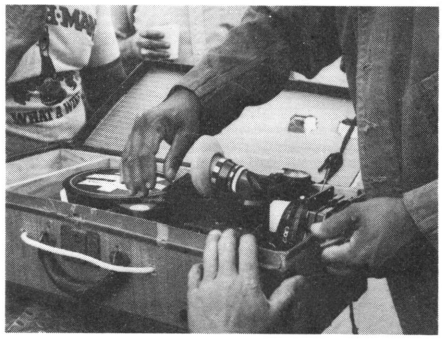
"Then we hid my 35BL in a cardboard suitcase, with holes cut for the lens and eyepiece. The second operator dressed up like the extras, and he sat down among them with the case on his lap."

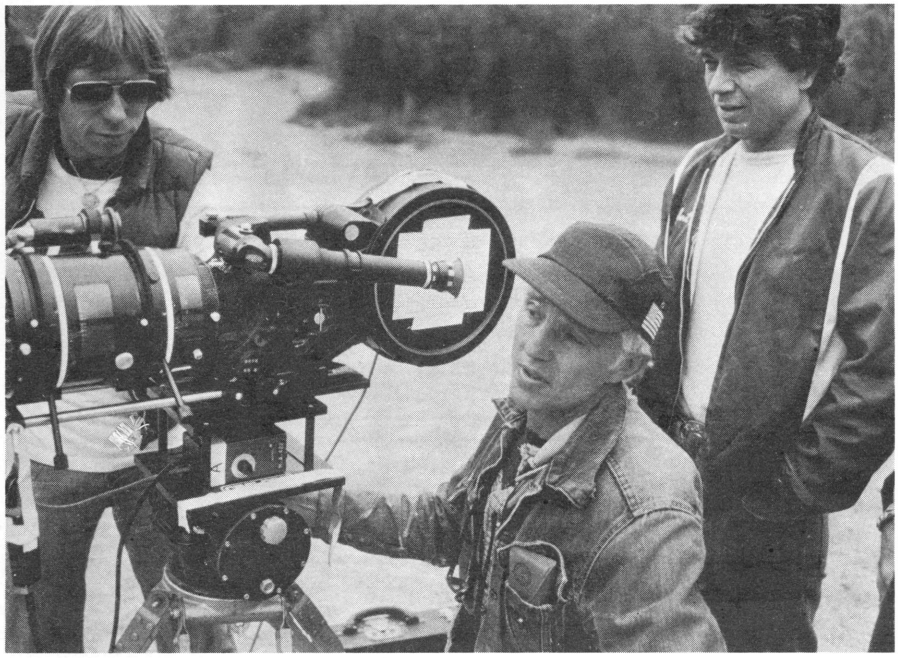
Sideways

"Even when they realized what was going on, they still acted more naturally, because he was sitting down and facing *this* way, with the suitcase pointing *that* way, off to one side."



Above: Operator, dressed as migrant worker, checks fit of hole cut in suitcase for 35BL viewfinder. Below: The 35BL being positioned inside the suitcase.





Working on an STP commercial with actor Robert Blake. "I much prefer to light looking through a 35BL — the image is brighter and clearer," says Mr. Wexler. "Hand-held, with the short eyepiece, the 35BL lets you see the frame edges more easily than any other silent-running 35mm camera."

CLIO

Mr. Wexler has also used a 35BL to shoot an STP commercial that won a CLIO. For the sync-sound footage, the camera was set up with a 1,000 foot magazine and 20-120mm zoom.

Motorcycle

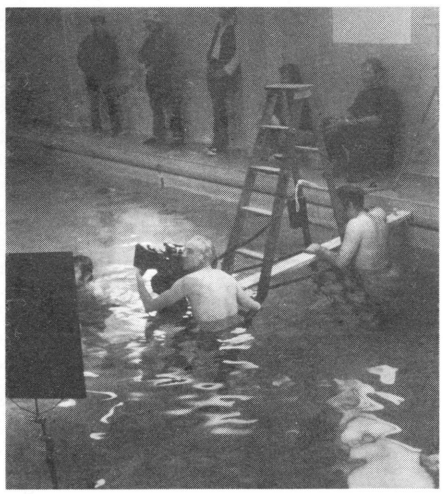
But they also needed some closeup footage of Robert Blake's face as he gunned his motorcycle down a dirt road.

Unsteadicam

"There was no room for an insert car," says Mr. Wexler, "So we mounted a sidecar chassis on the bike—and the operator rode on that with the 35BL. 400 foot magazine and a 24mm hard lens."

Lightweight

"In the bad old days, we'd have needed a separate, lightweight wild camera for that shot. But the 35BL took care of it nicely."



Wexler and 35BL in swimming pool, shooting sync-sound scene for *One Flew Over The Cuckoo's Nest*. Note relatively simple plank and stepladder rig supporting small camera.

Shooting STP TV commercial, Wexler gives instructions to cameraman perched on sidecar chassis with 35BL. Raincoat is for puddles in dirt road.

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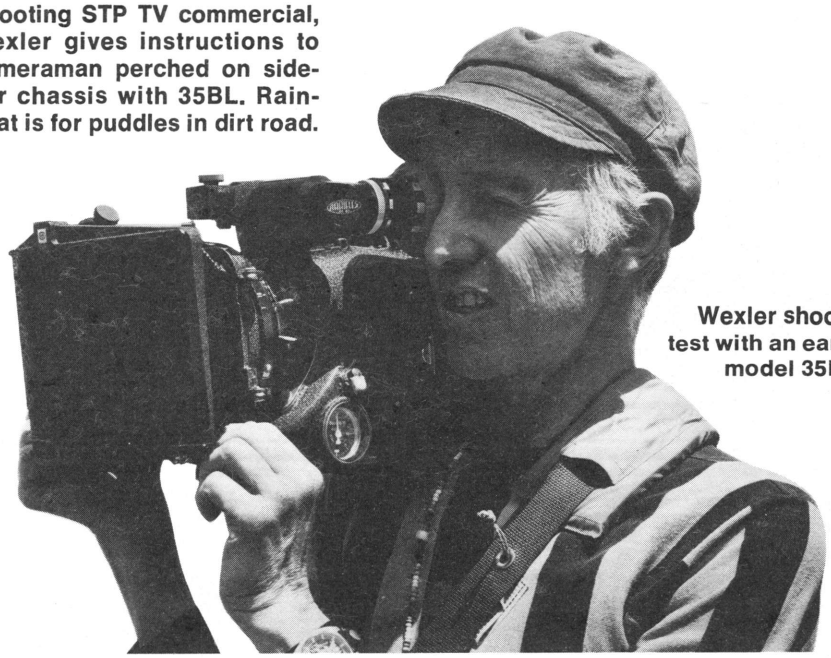
Unobtrusive

"That's one big advantage of an unobtrusive camera like this. Even with professional actors, there's one less thing to distract them. I can often *ease* quietly into a scene — using the camera's internal slate system and my radio bloop, and waving a finger to indicate *Rolling*."



Wexler shoots test with an early model 35BL.

PHOTOGRAPHING "SHOGUN"
Continued from Page 893

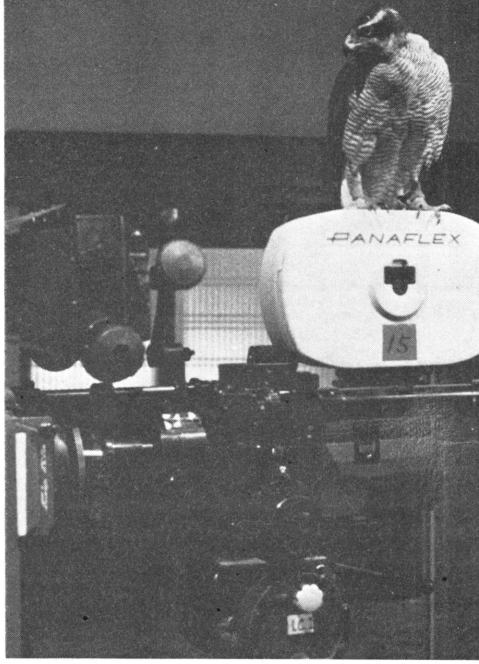
thered my personal education by making trips to the museums and buying picture books—all of which would have something to do with the way of life in Old Japan. I sought out anything that would give me a little bit of insight into the task that lay ahead of us. For example, watching Samurai dramas (which could be very stylized and, at times, very misleading) nevertheless was helpful in understanding that way of life and how we were to go about photographing it.

The worst day of the entire stay came on the first day of shooting, with the Japanese doing it their way and the American staff doing it their way, and the twain never meeting. It was absolute, total chaos. It also represented "the door closing behind the prisoners", so to speak. When we heard the words: "Alright, roll it." We knew that it had finally started, that we had just entered the tunnel, and that it was going to be a long, long haul.

But then, when the dailies were shown on the second day, what we saw on the screen was most interesting. We saw a man sleeping on the tatami floor, with that wonderfully diffused light coming through the shojis (the rice paper sliding doors and walls of a Japanese home). When the door slid open and the sun streamed in, there was the contrast that I had hoped to get, having worked the sequences out in my mind and knowing that the violence in the darkness of the storm that washes Blackthorne ashore was going to be followed by the serenity of him waking up in this little Japanese home. There was the almost total quiet, accentuated by the birds singing, the quietly respectful chattering of the people outside the house, and the wonderful sound that the shoji makes when it slides open and the little Japanese woman on her knees with a tray of food comes into the room. It was an almost religious experience. It was delightful and wonderful and we knew that we were on the road—that it had started.

The first thing we shot, after the sequence of Blackthorne waking up in the home of the fisherman, was the storm sequence in the tank at Toho Studios. The tank was so large that it took 27 days to fill it with water to a depth of four feet. Prior to filling it, our special effects people, who had been at work for months by this time, had excavated the middle of the tank, building a pit in it that was to accommodate the machinery and gimbals on which the ships were to be placed in order to create the rocking and pitching motions of the storm. This would be done through the use of pneumatics and cables and pulleys and what not. Of course, the tank also had the standard wavemaking mechanisms. We had three wind machines with aircraft engines and propellers, operated by small generators.

We also had to construct three scissor-arcs which were capable of throwing a lightning flash as far away as we had to throw it. These were constructed in Kyoto out of surplus army searchlights. The guts had been removed and the mirror left in, so that they were focusable and the beam of the flash could be concentrated in a selected area. Each of these three scissor-rods had six carbons facing each other. Therefore, the flash they put out was enormous.

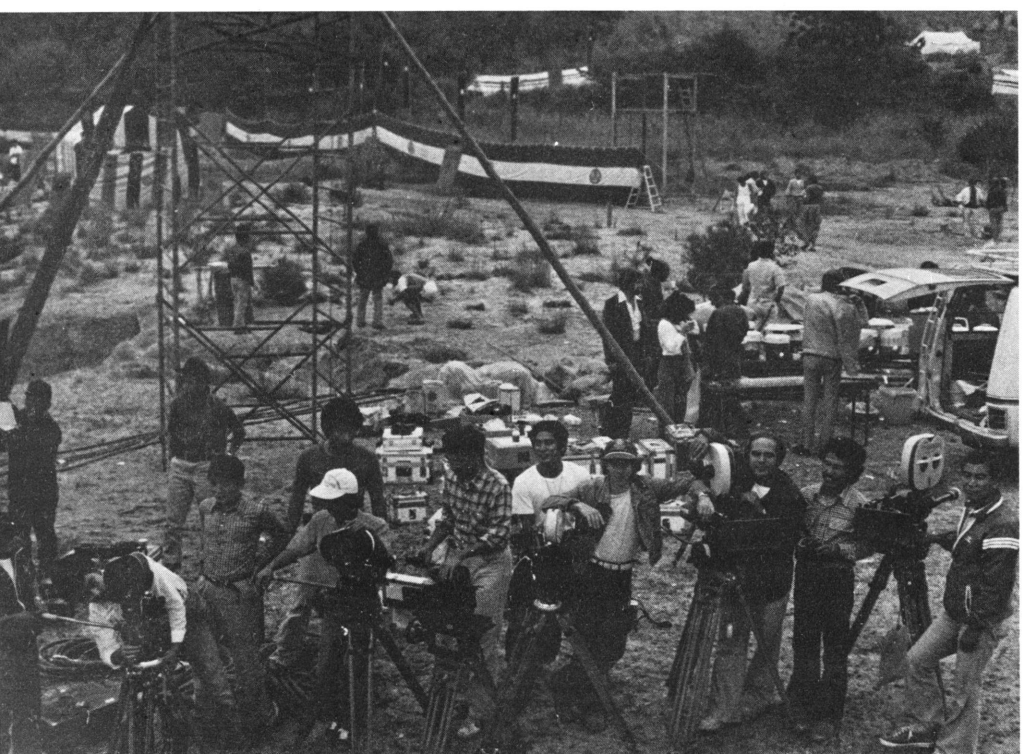


The Panaflex camera is for the birds, if one is to believe this trained falcon who found the famous camera a fine place to perch between scenes.

Because of the current that these devices drew, we had two of the biggest generators available in Tokyo just to supply the three scissor-arcs. We also had fire hoses and other equipment that generated the rain and the water that was shipped around the ships and, of course, all of this created a tremendous problem of communications. No amount of voice communication was possible because of the huge area, the noise that was involved and because so many different elements had to be coordinated every time we made a shot. So I had to come up with a signal device involving a red and green light. Several of these were placed around the tank in position where everyone, whatever their functions were, could see them. Specific signals were worked out in such a manner that flashing red meant one thing, flashing green meant another thing and steady red or steady green meant something else. As a result, no voice commands had to be given in order to start the sequence of events for a take.

We were working with multiple cameras in all cases around the tank and the cameras were always ready and focused and framed up. Then, when the director and the cast and the technicians were ready, the green and red signal system went into effect. According to a certain combination of signals, the wavemaker started, the fire hoses started, the gimbals started, the wind machines started, and when the steady green light was the only visible signal, then everyone around the tank knew that the cameras were rolling and the actors were acting. If the green became a flashing light it meant: "Keep the systems going. We have to cut

An array of multiple cameras is set up for filming of the vast earthquake sequence. The first time out tragedy struck when planted charges failed to trigger the quake and three special effects technicians were buried trying to solve the problem. A second try, using a completely different system, succeeded several weeks later.



the cameras, but we will be going into the take immediately."

Our signal arrangement proved to be a very good system, considering the time element that was involved just to get all of the various elements into operation in the proper sequence and to the exact density and level that was needed for the photography. In some cases we had less than a page scheduled for night shooting because of all of these technical difficulties and on a television production (or even on a feature production) that can be considered a very generous schedule.

One of the greatest technical challenges in the filming of the tank sequences was the coordination of the lightning effects. Since voice communication was completely out of the question with the operators of the scissor-arcs, the closest of which was 300 feet away from me, a completely different system of cuing had to be devised. We ran an electrical line with a low-wattage bulb to each one of the scissor-arcs. From the main camera position I was able to turn these low-wattage bulbs on and off with a bell-type switch, so that the operator of the scissor-arc could imitate and copy all of the fluctuations of the low-wattage bulb. If I wanted a continuous spurt of flashes from a particular scissors-arc, I kept playing that button and the operator would give me pretty much the same flashes that I called for. When the bulb went off he stopped. Two of the scissors-arcs were at three-quarter angles coming from the sides and behind the ship, while the third one came from almost directly over the camera. Sometimes they were all operating at the same time and, at other times, separately from each other. As the storm progressed and became more violent, there were more and more of the lightning flashes.

While on the subject of the storm sequence, I must point out what good troupers the actors were. Richard Chamberlain, in particular, who was in every one of these scenes, having been soaked to the skin from evening till morning, did an incredible job without ever losing his cool and without ever losing his interest or enthusiasm. He just went night after night with his costume sticking to him and not being able to get warmed up or dried off. He really earned my admiration through the way his good nature and professionalism never wavered during the entire production.

When we finished with the storm sequences in the tank, other scenes that required the presence of the same cast were filmed at Toho Studios. These included sequences inside the cabins of the *Erasmus,* which was Blackthorne's ship, and the cabin interiors of the Japanese galley, which was Toranaga's ship. Most of these interiors were built on gimbals, since these ships were constantly in motion. Even when the ships were depicted as being tied up in a harbor, there was always a gentle motion involved that required a certain amount of gimbaling action and light effects on the walls. And so, by completing the tank sequences, the ship cabin sequences and some of the Anjiro interiors, we finished filming in Tokyo.

I don't recall exactly how many weeks we spent filming in Tokyo, because at this writing everything blends together in my mind, but the amount of time we spent was approximately what would have been needed to complete the average feature film. And so, instead of feeling elation over having completed such a dif-

Continued on Page 961

Director of Photography Laszlo, unable to resist finding out what it feels like to be Shogun, assumes the place of honor on a set at Daiei studios. (BELOW) "A chip off the old block" (hopefully) is young assistant cameraman Jeffrey Laszlo, son of cinematographer Andy Laszlo, who spent several months working on a SHOGUN camera crew in Japan.

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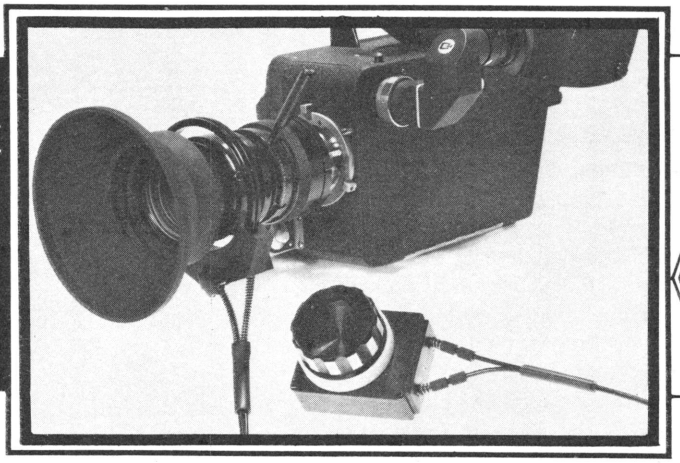

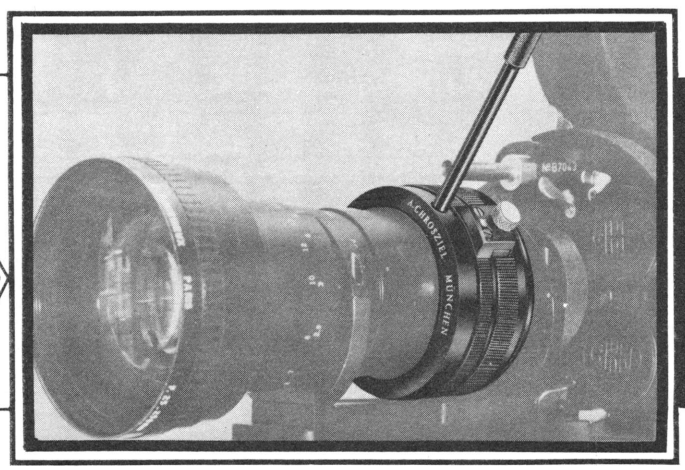

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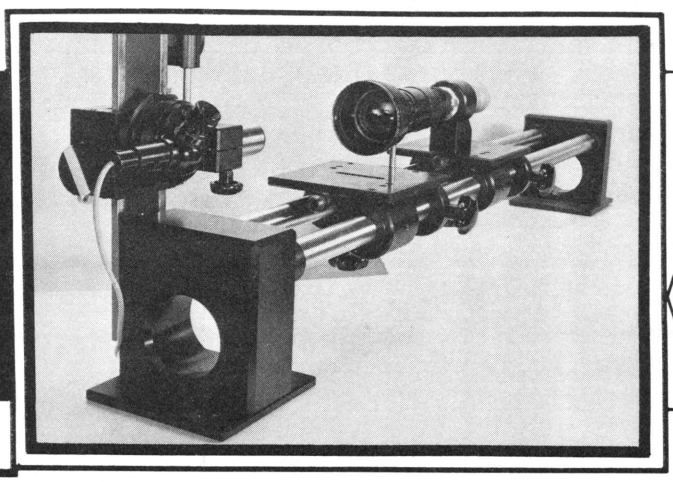

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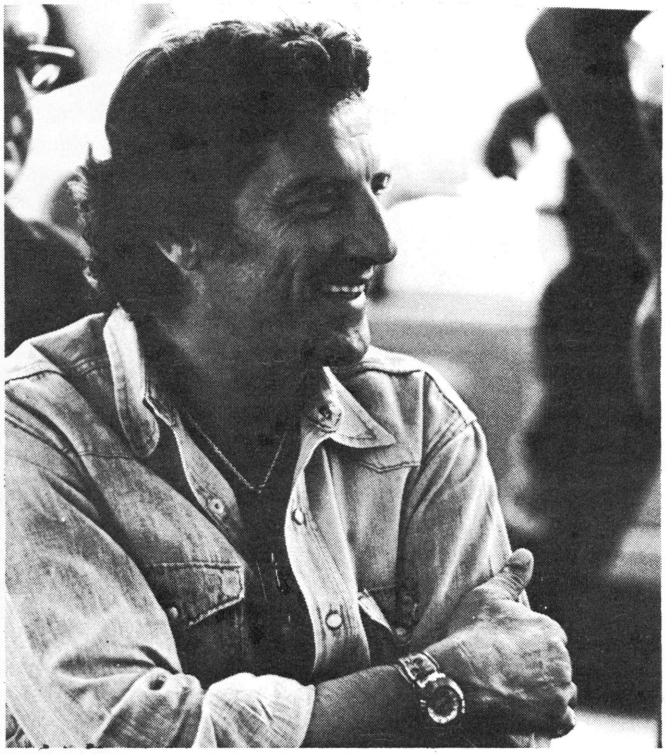

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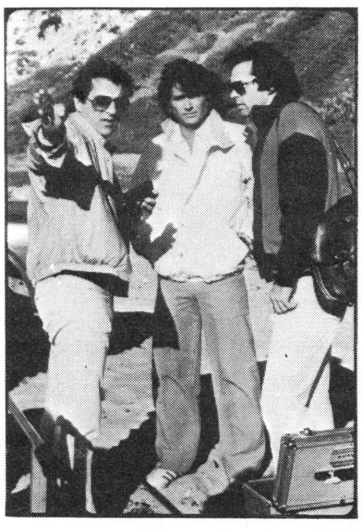

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SCREENWRITER/PRODUCER TALKS ABOUT "SHOGUN"
Continued from Page 897

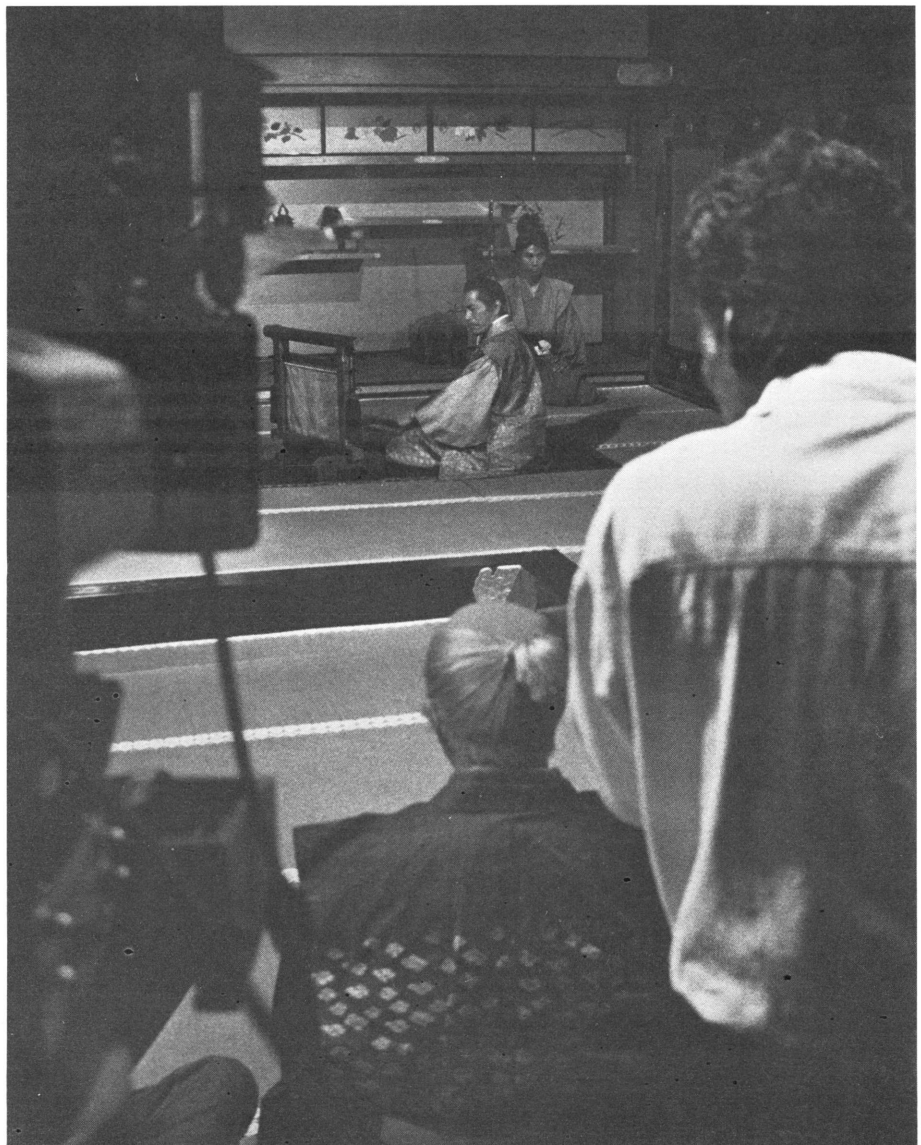
BERCOVICI: In terms of our exteriors, we were able to film at Himeji Castle, which is a national treasure. In fact, we were the first film company to shoot there in quite a while, because previous film companies had left a bad taste in their mouth. We filmed an enormous amount at Hikone Castle—not only the castle, but the gardens—and at Fushi-momoyama, which is a castle that has been reconstructed. The original castle was taken down stone by stone until no trace of it was left and I think in 1967 the castle was reconstructed right in Kyoto as part of an amusement complex. It's known as the Disneyland Castle, but we were able to film there in such a way that the castle is as real as any of the other castles we filmed at. However, we were not allowed to film in the interiors of any of the castles. All of that had to be constructed and it was a fairly large construction job, involving many floors of the castle. One would be on one stage and one would be on another stage. This was at Daiei Studios in Kyoto.

QUESTION: Now, when it came to the design of the picture, did you use an American production designer or Japanese or both?

BERCOVICI: In the art department we had Joe Jennings, who was our American production designer and a Japanese art director known as Nishioka and they worked very closely. In our props, an American prop man and a Japanese prop man. In our set decorations we had Tom Pedigo and a magnificent Japanese artist by the name of Shin Nishida, who not only helped in the decoration of it, but, by hand, painted all of the walls. When you see the film you will see these walls; we wanted to take them home they were so good. They are a series of tigers against gold backgrounds—just beautiful. We rented all the flats from Daiei and they own the flats and we own the paint and we left them all behind. But in every approach and in every area we had the Japanese counterpart to the American technicians we brought with us.

QUESTION: The costuming, was that done over there?

The construction of sets in Japan differs markedly from the methods used in the American film industry. Sets are built very solidly, as if they were to remain permanently, and the convenient "wild walls" of Hollywood are almost non-existent on Japanese sound stages. It is sometimes necessary to remove half the set in order to get the desired camera angle.



BERCOVICI: Shin Nishida designed the costumes and all the costumes were made there.

QUESTION: What about the casting of SHOGUN? How many people did you have to bring over and how many, relatively speaking, did you find there? I don't mean extras, of course; I mean leading players.

BERCOVICI: Richard Chamberlain was the only actor who came from the United States. We brought all of the non-Japanese actors from England. The rest of the cast we found in Japan. The only actor who was cast when Jerry and I arrived in Japan was Toshiro Mifune. He had been cast right up front. He was part of the whole concept. When Jerry and I were first in Japan we spent hours and hours going through casting sessions. While a lot of Japanese actors are very well known in Japan, we didn't know them and so we had to familiarize ourselves with them in the lead roles. We were very happy with all of them. But for the minor roles, it was even harder. What we did was sit in an office with a translator and some of the Japanese production people and we would see 60 people a day, at first weeding out and seeing types and all of that, and then we would do call-backs. And we went through a lot of meetings and a lot of interviews and then the final selection program that gave us quite a lot of actors to chose from, and then we taped them. We had scenes that they did and we had them all on tape and we did our casting from that. We were at a great disadvantage because we couldn't understand what they were saying, so we had to really judge them on a very intuitive level and, for the most part, all those judgments proved to be very sound. There were a couple of instances where the Japanese production assistants would say that this actor did not read well and we would, of course, take that information very much to heart because we had no way of knowing whether they did or did not, but it all boiled down to the fact that the final choices were made on the basis of those taped tests that we did in Tokyo.

QUESTION: You spoke of a SHOGUN feature being made concurrently. What will the feature be for? Will that be the foreign release?

BERCOVICI: The picture will be for foreign release in Japan and Europe. As far as I know the feature will not be shown in the States.

QUESTION: You said you had to shoot

about a finished hour more for that feature version. What alterations did you have to make? In other words, how did it have to be changed, as opposed to just doing a cut from the other footage that you shot?

BERCOVICI: The story of SHOGUN is a very complex story. It took 1200 pages to tell in a novel. It took 600 pages to tell as 12 hours for television, and in order to make it short enough for a feature I had to cut the script down to about 200 pages. In doing that we obviously lost a lot of scenes and there was a lot of information and character development in those scenes that had to be included in the picture for it to make sense. So, I rewrote those scenes, both as story bridges and character bridges for the feature and those scenes comprised the additional hour of film that we had to shoot.

QUESTION: In other words, the new scenes served to condense and bridge what you had left out, but wasn't there a considerable amount of the original footage that could be used in both versions?

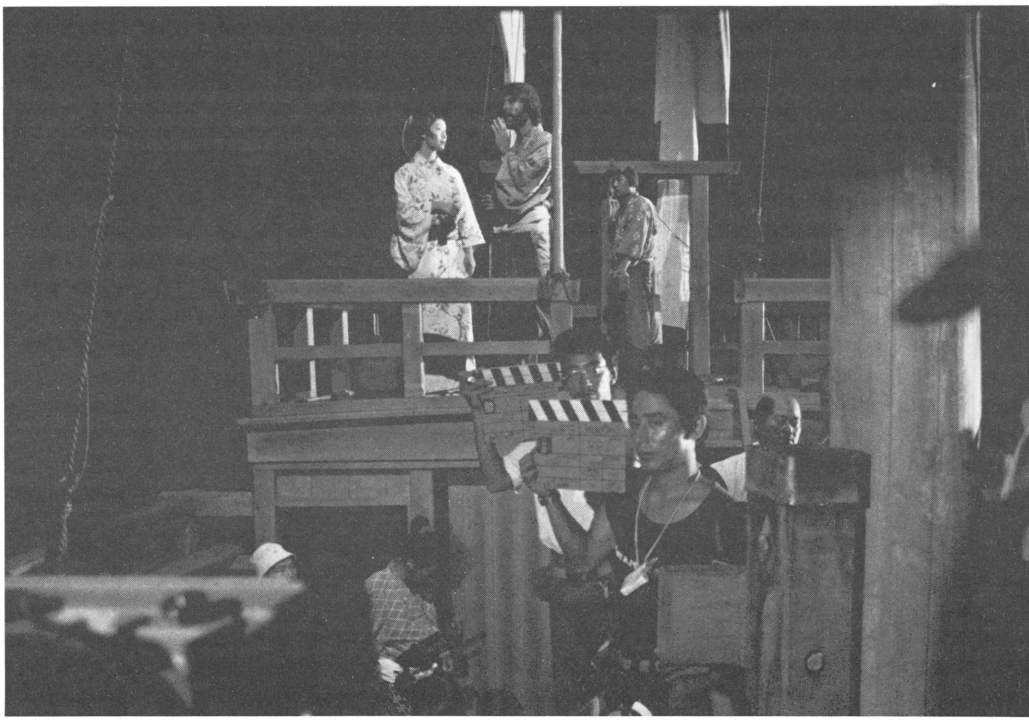
BERCOVICI: Oh, yes. I would say that about 75 percent of the feature will come out of the television 12 hours, although a lot of scenes we shot twice, filming both a feature and television version. We had a terrific script supervisor named Larry Johnson who somehow miraculously kept everything in order.

QUESTION: In the remote area where you built the two villages what were the logistical problems involved in maintaining your supply lines and how far was it from a major city or center?

BERCOVICI: Nagashima was about five hours by train from Tokyo and about four hours from Kyoto. The nearest town of any size is Toba which is two-and-a-half hours away. I never went to Toba on this trip; there wasn't time. Originally the company was going to be housed in Toba, which would have meant five hours of travel every day. That was the nearest town with a Western-style hotel, but five hours of travel every day was overwhelming. So we split the company up into a lot of different areas. The nearest small city to Nagashima was basically a town which was 35 or 40 minutes away and almost all of the American crew and all of the cast stayed there. Frank Cardea and myself stayed in Nagashima proper and the Japanese crew was scattered around the countryside for the most part. We filled up all the Japanese inns within an hour's radius. Our supply line was very difficult and very limited. Film had to be processed in Kyoto and it was usually driven up. We had no real projection room in which to see our dailies in Nagashima and we had a portable 35mm projector that we set up in a dressing room so we would see dailies between four days and a week after we had shot them, which was the quickest that the film could be driven to Kyoto, processed and then driven back. We saw "weeklies". The time in Nagashima was difficult for everyone for a lot of reasons. The weather was incredibly hot; the humidity was like walking around in a steam bath. We shot there at night on the water for literally weeks in a row and when you are in night shooting

Continued on Page 946

Yoko Shimada as Mariko, Toshiro Mifune as Toranaga, and Richard Chamberlain as Blackthorne rehearse a scene in the studio. It is the custom of Japanese actors to work on several film projects concurrently. Thus, it was feared that any delays in production might make certain actors unavailable when shooting was resumed. Fortunately, this did not happen.



Japanese assistant cameramen slate a scene for two cameras. The local slates, small and with Japanese characters, were not suitable for this production, so Cinematographer Andrew Laszlo designed American-style slates. The Japanese were amazed (and some were appalled) when Laszlo went into the studio shop and constructed the prototype himself.

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comes a samurai. He falls in love with a beautiful girl and does he get her or does he not and what's the end of the story? The book is a Japanese story in which the Europeans are incidental to the plot. It's the story of Toranaga and the Japanese infighting and how a man becomes a Shogun.

QUESTION: In the book quite a bit of Japanese is quoted and the Japanese are portrayed as speaking their own language, with the European newcomers baffled because they don't know what is being said. How did you handle that language problem in the film version?

CLAVELL: We didn't want to do this with the old-fashioned Fu Manchu stuff, having the Japanese actors speaking English with a phony Japanese accent, which is ridiculous. So, in our show, the Japanese speak Japanese and we only tell Blacktorne's story. We tell it from Blackthorne's point of view only. If Blackthorne understands what the Japanese are saying, we, the audience, are going to understand. Early on somebody says, "How do you say 'I understand'?" Somebody else says, "Warkarimasu." So pretty soon when Blackthorne says "Warkarimasu", you know it means "I understand". If somebody nods his head and says "Hai", pretty soon you know that means "Yes". Some of the things you are not quite going to understand, but then somebody will tell you, or the music will tell you. The audience will have to seek some of the meanings. They'll have to listen.

QUESTION: SHOGUN in novel form is so rich and so long that even in 12 hours of screen time you obviously could not include everything that is in the book. How did you arrive at what to leave in and what to leave out?

CLAVELL: In actuality I didn't have that problem because I passed it over to Eric Bercovici. I did not want to write it and I didn't guide him. I said, "Here it is, Eric." And he said, "Okay." And six weeks later he had finished. He'd written 600 pages in six weeks. I think that he is certainly one of the most brilliant screenwriters that I've ever come across. He somehow or other took the book and made it playable in film form.

QUESTION: Is it true that there are several versions being cut out of the footage that was shot?

CLAVELL: Yes, and I am very confused just now because we are doing three things. Number one, we are doing the 12-hour series for television. Number two, we are doing a two-hour-and-thirty-minute feature film, which I've just seen the rough cut of. We are also doing a Japanese version, and then there is the book. I'm so confused now that I can't remember which is which and what's in what. On the one hand you've got the book, and on the other hand you've got a feature film that is different from the book, but similar. Then you've got a 12-hour version of SHOGUN which is dissimilar, but similar to the film and dissimilar, but similar to the book. I think you will find that if you enjoyed the book, you will enjoy the film. It's faithful in its way, although, as I've said, it's not the book. A larger portion of the Japanese stuff, of necessity, had to be left out, because you can't have Japanese talking Japanese with sub-titles. American audiences won't accept that. You can't have lip-sync dubbing. You can't have them speaking Japanese one minute and English the next minute among

Continued on Page 945

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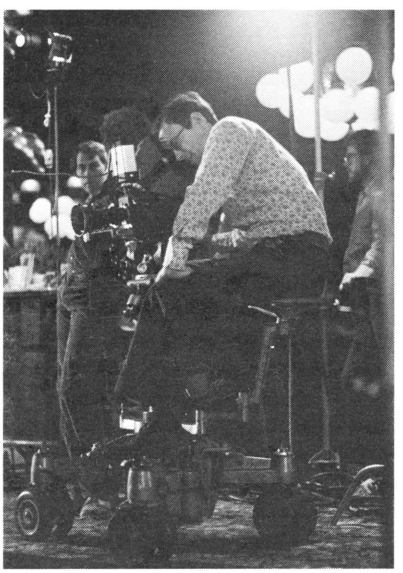

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BEHIND—THE—SCENES DIARY ON "SHOGUN"
Continued from Page 915

has sunburn. 100 extras tomorrow.

DAY 34—Hiromatsu's arrival. Japanese assistant directors and myself staging big scene. Light match problems.

DAY 35—July 27, More Hiromatsu's arrival. Nine pages in two days. Very difficult.

DAY 36—Rodrigues and Blackthorne—two scenes. Very tired from heat. Scope shots. Thursday's work-negative was bad. Waiting for appraisal—may have to reshoot. 100 extras and Hiromatsu's arrival—big scene. Report negative OK. Fixed at Far East lab.

DAY 37—Tomorrow shoot split day. Blackthorne's house (day) and scene at Osaka wharf (night).

DAY 38—July 31. Scene with Mariko and scene at wharf. Fishing boats in our shots/had to wait for them.

DAY 39—August 1. Finished Osaka wharf sequence. Japanese actor did not know his lines. Scene with Mariko and Blackthorne aboard the galley. Heat is intense. Night work for the next two weeks. Happy to get out of heat.

DAY 40—Alan Badel and Masumi Okada. Osaka wharf escape will take two weeks. Big action sequence. Paramount has sent over expert to cut 50 pages of script. Trying to cut budget. (It never happened). Interesting political ramble.

DAY 41—Night. Beginning the Osaka wharf sequence. A big rain storm in the middle of shooting. Put a tarp up and kept going. Will have to loop the scene. Lost about ½ night's work.

DAY 42—Rained again. Tonight we are going to do the fight sequence. 100 extras.

DAY 43—Continued shooting night sequence escape from Osaka. More fight sequences. Well done.

DAY 44—Continuing the Osaka wharf battle. Effects not working. Knife throwing didn't work. Day and half behind.

DAY 45—Eight pages of dialogue. Osaka wharf sequence is still one day behind.

SATURDAY—Went to Kyoto—coming back Monday—Shoot Monday night.

Looking at Hikone and Himeji castles and locations for the earthquake site. Tired—exhausted. Problems with castle restrictions.

SUNDAY—Saw 90 minutes of cut film. Footage terrific. Bullet train back to Nagashima.

DAY 46—Night. Problems with boats and organization.

DAY 47—Trying to finish most difficult sequence of show, the Osaka wharf sequence, to get off night schedule. Finished part of the boat sequence attacking the fishing boats at Osaka wharf.

SATURDAY—Helicopter shots. Logistics tremendous. Weather holding.

DAY 48—The Osaka wharf sequence—blasting the boats. Night went well; also the Nimazu sequence with Rodrigues and Ferriera aboard ship.

DAY 49—Urano death scene. Tomorrow continue blowing up boats.

DAY 50—Blowing up boats. A typhoon may be coming in which will bring rain, wind—make us postpone our helicopter shot on Saturday.

DAY 51—Finished Osaka wharf sequence with ramming of the boats. Two set-ups took all night. Maneuvering eight boats, the galley and three camera boats and two tugs. Communication tough with many people trying to move so much equipment. Effects work well, but very frustrating. Toughest week ever. Back to days.

DAY 52—Opening shot of the picture. The longshot of the *Erasmus* at sea. Bright sun.

DAY 53—Vinck dies on the beach. Seven-minute scene and George Innes was letter perfect. Downpour came and rained us out—about 4 P.M. Have four cuts to finish.

DAY 54—Rained again. Went to cover. Mariko, Blackthorne love scene. Stopped raining. Went out to finish Vinck death scene on the beach and it started raining again. Really storming. Lost another half day because of weather. Tomorrow big scene—Toranaga's arrival. Today we paid off 100 extras—$4000 because of weather. Have to recast Fujiko. Problems with Buntaro and Yoshinaka, who work next week. Trying to arrange the schedule in Kyoto to finish all the exteriors possible.

DAY 55—Clear. Toranaga arrival sequence. 6½ pages. Sun went down at 4:30.

DAY 56—Finished the Galley and finished the *Erasmus*. We are off the sea. Today, Saturday, August 24, we worked in Blackthorne's house. First day with Fujiko. Terrific. Five days left in Nagashima.

DAY 57—To date, shot 57 days and 1½ days behind. A miracle with all the problems.

DAY 58—Finished in Blackthorne's house. Weather overcast. Tempers are hot because of tension and difficulty in shooting Nagashima.

DAY 59—31st of August. Shot burnt Blackthorne's house destroyed by earthquake. Finished at 1:00. At 1:15 a thunder

Continued on Page 955

Operator behind a plastic covered Panaflex camera is buffeted by wind and spray as he prepares to shoot scenes of the *Erasmus* off the coast of Nagashima. A real typhoon wiped out all of the elaborate sets constructed there immediately after the company had completed shooting.

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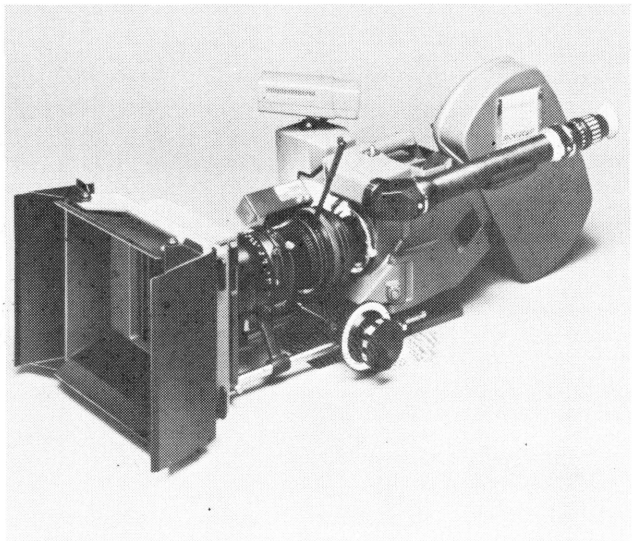

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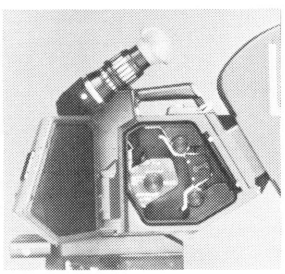

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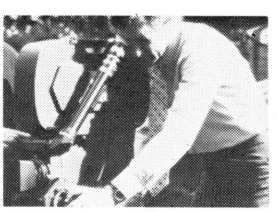

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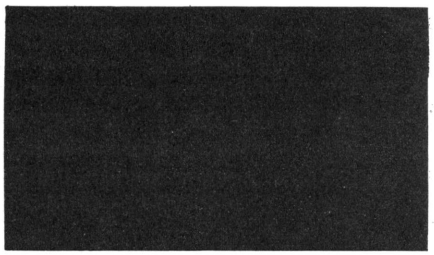

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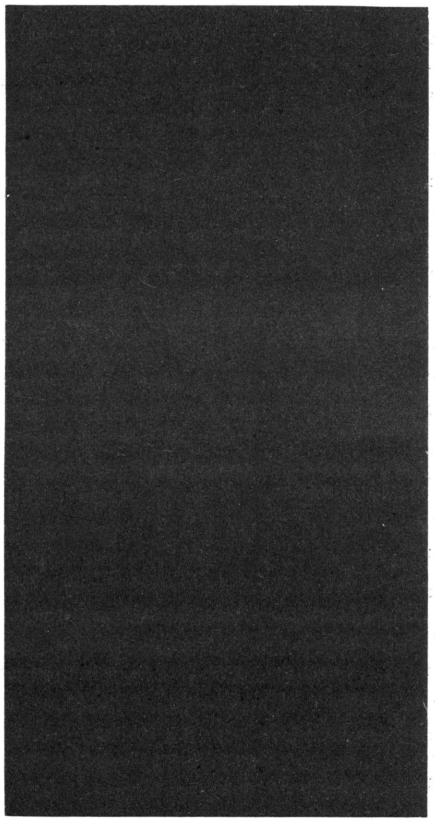

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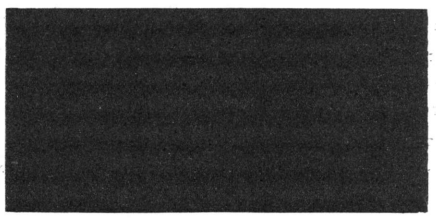

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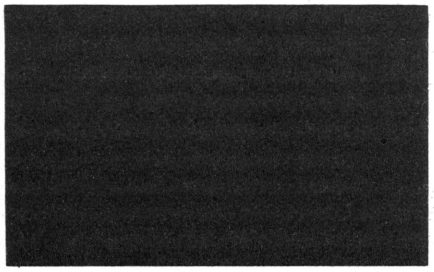

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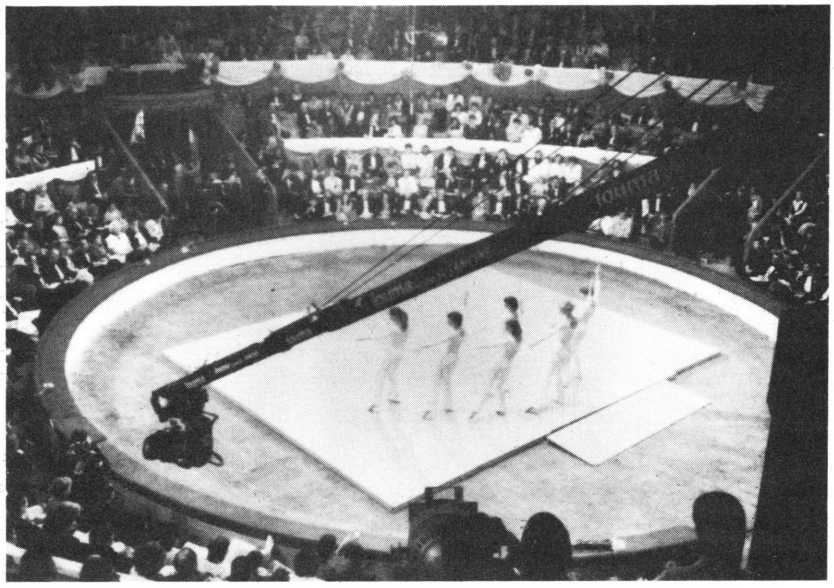
The Louma Crane comes to town



At a recent circus shoot the script called for shots of the performers entering the ring to be taken starting off from behind the band and jib-bing over into the ring, shots of clowns doing their business with the audience, close ups of the ringmaster, shots of the horses and riders as they jogged around the ring, elevated shots of the high wire artistes taken from the very top of the Big Top, close-up shots of the lion act with the camera actually inside the cage, etc. . . . all at one live performance with one main camera.

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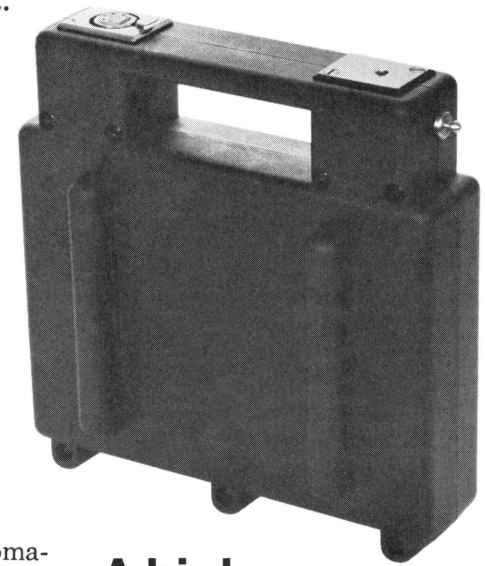

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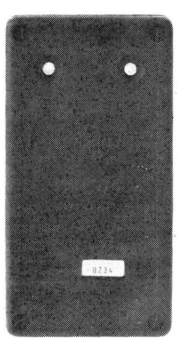

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SUPER-16 COMPARED WITH 35mm ON THEATER SCREEN
Continued from Page 907

chased a Super 16mm Aaton camera and 12mm, 16mm, and 25mm Zeiss super-speed lenses. At the time of our purchase we had not yet found a high-quality 16mm zoom lens that covers the Super 16mm picture area. We are confident that this will be accomplished soon.

We wanted to shoot a test to demonstrate what a Super 16mm feature film sequence would look like when compared directly with 35mm footage of the same sequence. We decided to shoot a dramatic sequence of an actor performing a song. By shooting the action against sound playback, we were able to keep the dramatic performance constant, allowing us, in editing, to directly intercut and compare the Super 16mm footage with the 35mm original footage.

For the shot, we hired an IA crew experienced in feature filmmaking. Peter Sova, our Director of Photography, had learned his craft in Czechoslovakia. His early training provided him with a technical background to go along with his creative abilities. My good friend, Mike Hausman, who has produced a number of feature films, handled the production problems. For the 35mm footage, we decided to use Panaflex cameras with Panavision lenses because they are commonly used in the industry for feature production. The Super 16mm equipment would be our Aaton with the Zeiss super-speed lenses.

Peter had General Camera build a special mount to hold both the Panaflex and Aaton on the Tripod so that we could shoot in 35mm and Super 16mm simultaneously with the same conditions. Bob and Mike scheduled the test for a two-day shoot. The morning of the first day we would photograph exteriors and then move inside in the afternoon to shoot the interiors, which would be completed on the second day. We selected various Panavision 35mm lenses to match our 16mm Zeiss super-speed lenses.

Since a perfect match was impossible, we would match them as close as possible. The 12mm/16 lens was used in conjunction with the 20mm/35 lens, the 16mm/16 lens with the 29mm/35 lens, and the 25mm/16 lens with the 40mm/35 lens.

When I arrived on the set in the morning of the first day of the shoot, I was a little taken aback with the size of the crew and cast for a film test. Twenty-one people were involved with the shoot. I was very impressed with how well everyone worked together.

Tony Azito, our singer, whom I had seen perform in *Reno Sweeney* in the

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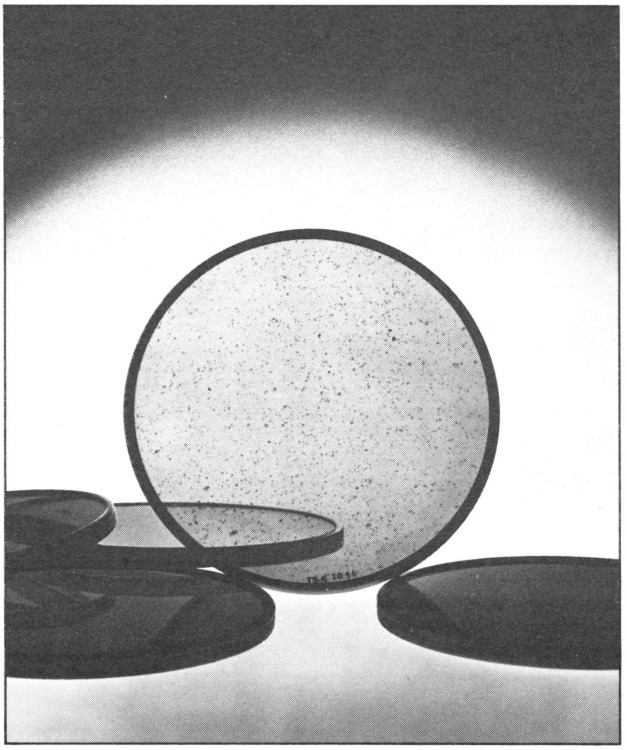

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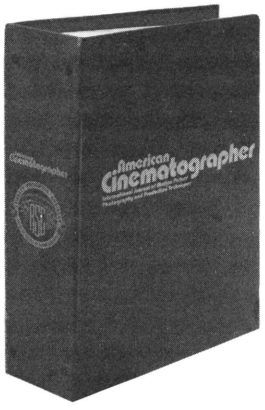

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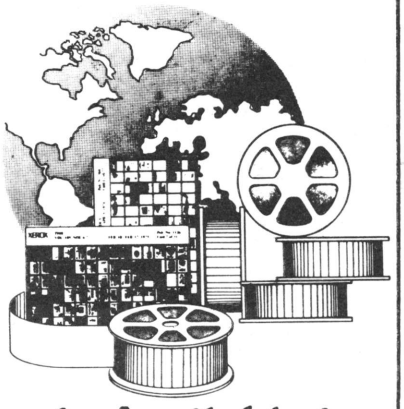

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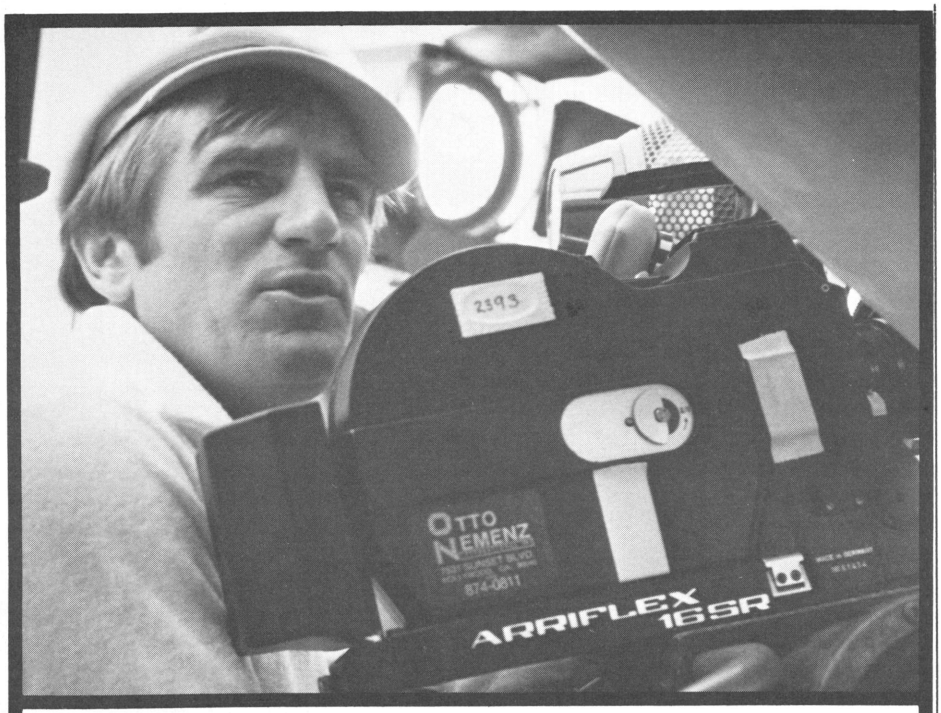

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SUPER-16 COMPARED WITH 35mm ON THEATER SCREEN
Continued from Page 934

Village, gave a magnificent performance and I felt for a brief moment I had the glory of being a real feature film producer. The first day's shoot went quite well but, considering all the money being spent, I was anxious.

After little sleep that night, I arrived at the lab quite early to screen the dailies. Both the 16mm and 35mm film looked great. The second day of shooting seemed even smoother, since I was more relaxed. By the end of the day I was really enjoying it and was really sorry to see it end. After screening the second day's dailies, I was delighted.

The negative was in the can and the completion of the project was more in my world, the film laboratory. The film was edited using the Super 16mm Daily with the 16mm mag made from the 1/4-inch original. Our flat bed was not adapted for Super 16mm and Bob was not happy at being unable to see the complete Super 16mm image on the screen. He felt strongly that in cutting a dramatic sequence it is necessary to see the entire picture. He was able to work around the problem because our screening room, which has the capability of Super 16mm double system projection, was always available to him and the sequence being cut was not too long.

When the 16mm editing was completed, the 35mm dailies were matched to the 16mm edited workprint. The sound was mixed at Du Art Sound Studio using this 35mm workprint. The Super 16mm negative was matched to the 16mm workprint in scene sequence, leaving approximately six additional frames at each negative cut. Final conforming would be done in the optical printer. This would eliminate any problems due to splicing. The same method was used in matching the 35mm original.

Answer prints were made from both the cut 16mm original and 35mm original negative to check out the original material and for timing information needed in the subsequent stages. The original Super 16mm was then optically blown up to 35mm CRI Negative. From the original 35mm negative we made a 35mm optical master (5243) and from this master, a contact 35mm color dupe negative (5243). From this same original 35mm negative we also made optically a 35mm CRI. We now had three 35mm printing negatives of our dramatic sequence.

In our demonstration reel we were also interested in showing comparisons of white titles over a live action background where the background original was shot in both Super 16mm and 35mm. This we did by placing our end credits over the

last scene. 35mm optical masters were made from the Super 16mm and 35mm original of this scene. The titles were photographed positive on 35mm Black & White high-contrast film. From the blowup 35mm master and the regular 35mm master, 35mm color dupe negatives were made optically. The 35mm high contrast positive titles were optically printed into the color dupe negatives before processing.

After the end titles were cut into each of the three 35mm printing negatives, 35mm prints were made. The three prints we would be looking at would be:

1. 35mm print made from the blowup 35mm CRI (Original Super 16mm)
2. 35mm print made from the 35mm color dupe negative (Original 35mm)
3. 35mm print made from the 35mm CRI (Original 35mm)

When the time came to screen the answer prints, we were excited and, of course, a little concerned because invitations had already been sent out announcing the seminar. We were extremely pleased with our results. We found that when viewing the 35mm prints one at a time it was not as easy, as we had thought it would be, to tell whether the original was 35mm or 16mm.

The next step would be an even more direct confrontation between Super 16mm blowup and 35mm. By A&B printing with zero cuts, we used the same negatives and intercut alternate shots between blowup negative and 35mm negative. Screening these prints, it was amazing to see how well the Super 16mm compared with the 35mm. We looked forward with excitement to presenting these prints to an audience of filmmakers. On June 2nd and 3rd at the Magno screening room in New York, we screened the prints for audiences totalling about 600 people. The response of the audience was very positive and an enthusiastic question and answer period followed each screening. Since the seminar, our Super 16mm camera and lenses were used to shoot a feature in Europe and New York.

Where Super 16mm will fit in the world of feature filmmaking, only the future will tell, but, due to changes in technology and the talents and style of the new filmmaker, the time for Super 16mm could be now. ■

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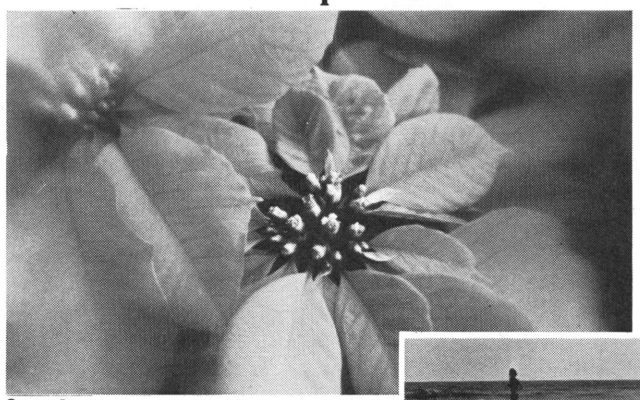

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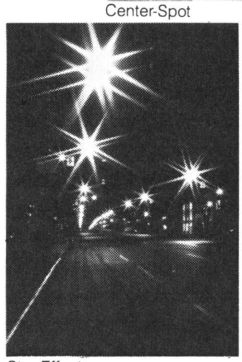

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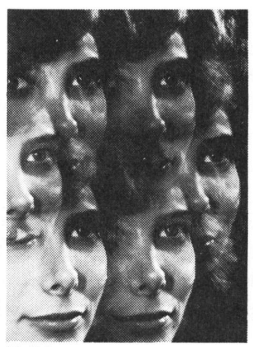

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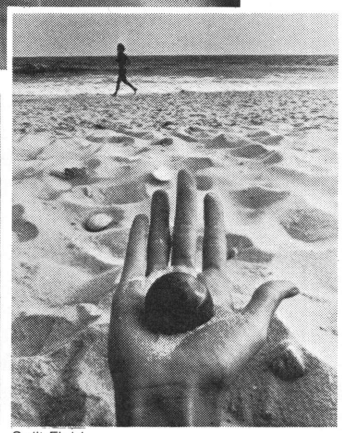

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(LEFT) Director Jerry London assumes the Shogun's seat of honor in one of the castle sets. (RIGHT) London poses with Director of Photography Andrew Laszlo, ASC, Damien Thomas (who plays Father Alvito) and Richard Chamberlain (Blackthorne). London, having directed three previous mini-series for television, blocked the entire project in advance so that he could stage any scene in the script at anytime in case of schedule changes.

THE DIRECTOR AND "SHOGUN"
Continued from Page 901

try to speak it and he doesn't have to. He has a lady interpreter with him at all times. He's very cooperative. He understands the director's problems and he wants efficiency. I've known him since 1967 and he is such a man that he can't do something that isn't perfect. He just refuses to do it. He will say "Good morning" to you in English, or "Thank you", but for all the rest he will go immediately into Japanese. He does not approve of his English; therefore, he will not exhibit it.

Another interesting thing about Mifune is that he's a wonderful horseman and he had some riding to do in the show, especially one scene where he's supposed to ride into camp rather quickly and dismount from his horse. We had a double for him, but he wanted to do his own riding and in the rehearsals he rode the horse faster than any stuntman I've ever seen in my life. He wanted Toranaga to have that style, so he wanted to do it himself. We all thought that was kind of risky, because the horses in Japan aren't really picture horses. I mean, they are about as wild as group as I've worked with anywhere.

So we shot the scene, did it about three times, and he rode in like thunder and got off the horse, but the fourth time the horse went left and he went right. He fell off the horse and there was a moment of sheer terror for everyone, but luckily he was just bruised. However, he's a proud man and he wanted to ride that horse himself, so all he could do after he fell off the horse was apologize. He was so apologetic when he fell off the horse, but he really gave his all to the picture.

By way of location scouting and for my own research, I made two trips to Japan. I made an initial scouting trip for about three weeks and looked at several areas that I had to get approval on—especially Nagashima, where we had to build extensive sets. I came home for a couple of weeks and then went back and was there for eight months. The second time I went back I was there for five weeks before we started shooting and every day I would run one Japanese feature in order to study the cultural aspects, to look at actors, to get the feeling of swordplay, *ninja* attacks. I looked at some of the kimonos and anything that had to do with the time period that we were shooting.

I looked at probably 15 or 20 films. Also I read several books. One was about the samurai and the culture of swordplay. We have four sequences of *hara-kiri* in SHOGUN and they are dramatic high-points in the film. I studied the ritual quite thoroughly and looked at other films to see how they staged it and read several books on the history of it. I also had a Japanese technical advisor with me, so that through the interpreter (because he did not speak too much English), anytime I had a question he was able to answer it. The Japanese were terrific in the respect that they knew what I had to go through

(LEFT) SHOGUN Portrays an era in Japanese history which, by its very nature, was characterized by a certain pageantry, a feature which makes the subject matter very colorful in cinematic terms. (RIGHT) Great care was given to the staging of the highly stylized rituals and procedures of the Japanese court of the period. Extensive research and the presence of Japanese technical advisors on the set at all times assured authenticity.

(LEFT) Spectacular Himeji Castle, one of several actual castles used as backgrounds in SHOGUN. (RIGHT) Director London, dressed for the heat and humidity of the location, prepares to stage a scene. Inclement weather and less than ideal filming and billeting conditions made working in some of the more remote locations difficult, but morale of the cast and crew remained high.

(LEFT) A night-for-night scene staged in one of the elaborate sets constructed for the filming. (RIGHT) Toshiro Mifune, international superstar who portrays Toranaga (later to become Shogun), has starred in many of the famous samurai films directed by Akira Kurosawa. An expert horseman, he did his own riding in SHOGUN, but was thrown from his horse (without serious injury) in one scene.

(LEFT) The village of Anjiro and the Osaka wharf were specially constructed in Nagashima for the first seven weeks of shooting. They were subsequently destroyed by a typhoon. Interiors of the castles were recreated on several stages of the Daiei Studios in Kyoto. (RIGHT) A Japanese galley battles the raging storm staged with frightening realism in the tank of the Toho Studios in Tokyo.

and what I had to do. They kept telling me that anything I needed to make this picture, in a technical sense, in a knowledge sense, they were very willing to give. I always had that.

They were very much concerned about the authenticity of what we were filming. I told them that I would like to look at as many films as possible and they would pick the films that had something to do with the era of SHOGUN, and they would watch them with me. In fact, I had four Japanese assistant directors and all of them would always watch the film with me.

Assistant directors in Japan break their responsibilities down between them. One is responsible in the casting area, one is responsible for costumes or props, and two are on the stage. All of them are interested in how the picture will look, how it will be shot, and how the director works—which is somewhat different from the attitude of the American assistant director, who absorbs the four into one. He keeps all the logistics going, but he isn't into the look and the feeling of the picture. So it's a little different over there, but I must say they are really interested.

Of course, the Japanese shoot their pictures a lot differently from the way we do. They shoot masters of everything. They don't cover anything. I'd cover over-shoulders and closeups and they weren't used to that. They simply shoot a master and tie it into another master. And the actors don't know anything about matching, which was a big problem for us. We had to teach them to do the same thing over and over again the same way. They don't worry about such things. One time their hand would be in a certain place and the next time they wouldn't care; they wouldn't think about it. Japanese filmmakers do a lot of cutting in the camera. They don't cover. They go in there and basically shoot the film that is going to be on the screen. Therefore, to them the matching problem doesn't exist.

I had a double matching problem because many times I had to shoot both the television sequence and the feature sequence of a certain piece of action. Now, the trick was how to get from the center of the scene, which had already been shot in its television version, into the feature version. A lot of the time it was an abbreviation or an addition and I'd have to figure out a way to take the staging that existed and work it into coverage that would work for the feature, which was tricky. Also I had to think to myself: "I know that this scene will be in both the feature and the television show. What size do I pick? Do I go for the closeup closeup or do I go for the feature closeup?" I couldn't really cover closeups in both sizes because I didn't have time to do that. So I would always make a distinction and say, "I feel that if I make this closeup a certain size it will work for both." If I knew the scene was strictly for the TV version, I would go for a television closeup. So I always had to be thinking about that on every shot. I always had that feature version/TV version thing on my mind, and how to bridge it.

There is no doubt that some of the wide-scale action filmed in long shots will look better on the big screen than on the television tube, but I had two cameras every day, which meant that I could shoot masters simultaneously in two different sizes. For the coverage, I'd cross the cameras and do the over-shoulders and closeups and their reverses simultaneously, and save time.

The mass staging I had to go through was terrific. On several of the sequences I had four cameras. For example, in an 18-page scene where there is a lot of dialogue, you'd wear the actors out if you shot it six times for coverage. But with two cameras you would only have to shoot it three times. In key sequences where there was a lot of action—the *Ninja* attack, the attack with the boats on the water—we had four cameras, which meant that we didn't have to reposition the boats and the actors so often. The biggest sequence we shot with multiple cameras was the earthquake sequence. We had ten cameras on that because the stunt could only be done once. It had all been worked out six weeks ahead of time and we had this ridged-in area that looked like the Grand Canyon and was about 150 yards long. We had filled the top up with dirt and put planks over it and on cue a charge was set off that dropped the planks and whoever was on top—actors, horses, whatever—would fall in. It was a very tricky kind of thing. We had 100 people out there, including actors and samurai extras. I also put Richard Chamberlain, the leading lady and Mifune in the shot and we worked the earth to fall around them. Certain of the ten cameras were remote and others had operators. We got them all rolling and I told the effects man, "It's yours!" He hit the button and nothing happened. We cut.

It had rained a lot about two weeks before and the earth on top of the planks had hardened like cement, so that when he hit the charges the traps didn't drop. He said, "I'll go down and check it out." So he went down and loosened things up and came back up and told us that we could go again. We did and nothing happened. So he said that he'd have to go down again and put in bigger charges.

While he was down there with his two Japanese special effects men, the whole thing collapsed on him. Now we were all running around and the rest of the time was spent saving the lives of the three people under there. The Japanese and Americans were digging and pulling lumber and someone called the fire department. Luckily they weren't hurt, but the effect, the way it was set up, was worthless.

So we had a meeting and decided that we would go a different way. Two weeks later we came back to do it again. This time, instead of charges, he used a bulldozer that pulled a line. We kept our fingers crossed, but this time it worked.

I had never met the Director of Photography, Andy Laszlo, before this project,

***The Golden Hinde II,* a replica of Sir Francis Drake's fabled galleon, was used as the Dutch trader/warship that brings Blackthorne and his crew to Japan. *The Golden Hinde II,* on loan from the San Francisco Nautical Museum, was sailed to Japan by its captain, Adrian Small. The 175-ton, three-masted ship crossed the Pacific in 69 days.**

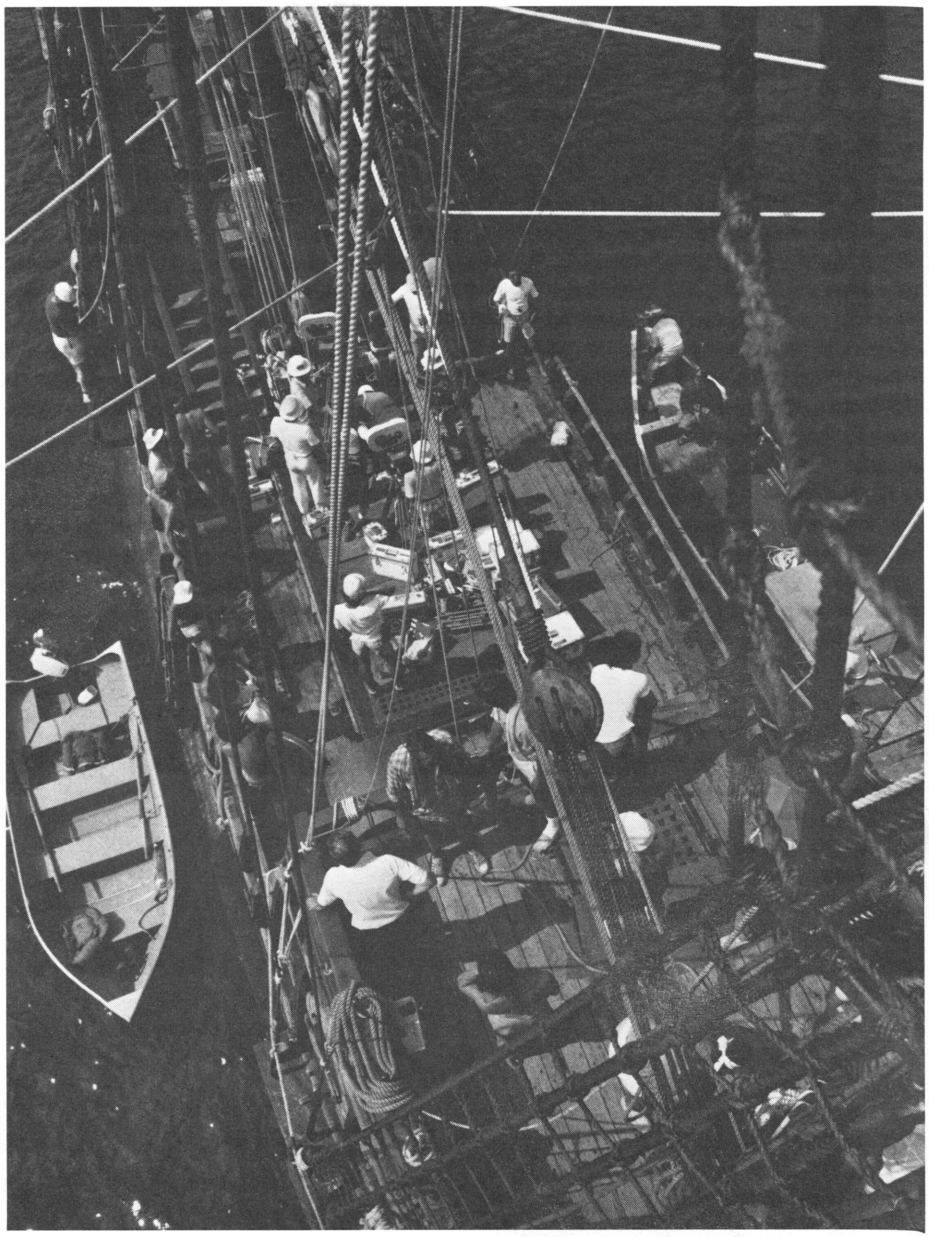
but Paramount recommended him to me and I saw several of his films and had a meeting with him. I thought his work was very good and we seemed to get along quite well. He was very enthused about the picture, like Eric was, and I said, "This is the kind of guy I like, someone who's really excited about the project."

We had a long talk about the look of the picture before we started, about the possibilities of using filters to desaturate the color and about the feeling of "bigness" what we wanted to get onto the screen. I must say that Andy did give a very unique look to the picture. It has the feeling of Japan in the 1600s.

Of course, we also talked about the use of color in the sets and the costumes. We didn't want any bright colors. We wanted muted tones, except for the kimonos and the priests' costumes, so that when you do see color it really pops out. Color adds a lot to the dramatics of this vehicle.

We were really fortunate to have some terrific equipment that was sent over from Hong Kong. We had two Panaflex cameras, plus the full complement of lenses, plus the diopters, plus three zoom lenses, and so forth. Andy's lighting was terrific. I really think he did a wonderful job. The sets don't look like sets.

We had some incredibly large sets, like the interior of the castle, for instance. There's one shot where Blackthorne walks through a door and we dolly down a corridor for maybe 50 yards, turn a corner, go another ten yards, the camera goes over his back, two doors open and we look down a room that is another 100 feet long. There were sets that you can't believe. They were pre-rigged and they have an interesting look, with a kind of lighting that makes them not look like sets. The audience will feel that we really shot the interiors of the castles. That's what it looks like. Some really fine work.



Crew members and equipment crowd the deck of the *Golden Hinde II*. In terms of sheer length and elaborateness of detail, SHOGUN is the most ambitious mini-series project ever attempted for television. A two-and-a-half-hour feature version was produced concurrently to be shown on theatre screens in Japan and Europe.

The only two pieces of equipment that we were lacking in Japan were a Chapman crane and a camera car. The crane they did have was probably built in 1935 and it was run by centirfugal force. A man climbed up or down a ladder and, as he did so, the arm swung up or down. When I saw this I laughed. I said, "Here I am doing this multi-million-dollar picture and it is all run by a man climbing up and down a ladder." But there was nothing else available, and it would have been very costly to ship a Chapman crane over.

We had a lot of sequences where there were hundreds of people trekking, going from one area to another on horseback in the back country and mountains of Japan—a beautiful area, gorgeous. But we were working on these dirt roads, where a camera car would have been terrific. We didn't have one. We ended up improvising by using a Panaglide on top of a van. That was our camera car and it worked. Their crane also worked, but it took longer to work with. It was like a dinosaur.

A Japanese stunt coordinator and an American stunt coordinator worked together on the samurai fights. The samurai who do the knife fighting come from Kyoto, because they make a lot of these movies in Kyoto. The Japanese coordinator would stage the fight and I must say those guys got in there and did it, but they usually put too much into it, because in the Japanese pictures they go in for overkill. So I tried to strip out some of it in order to give the action more realism. Our American stunt coordinator would work with the Japanese actors and try to explain it. He succeeded in getting it down to a level of believability. But I must say that those samurai from Kyoto really pitched; they did a lot of hard work.

Inevitably on a project of the size and scope of SHOGUN certain compromises must be made, but we made very few. There were basically a lot of big production sequences in the original script that were simply overwhelming. Some of them got simplified, but only up to a point. For example, something would be scaled down so that it would take only four days to shoot instead of two weeks, such as the rescue of Rodrigues during the galley sequence. Originally that was scheduled for two weeks of shooting, but financially it was not a good investment, and since I could bring it down without losing too much, that's what we did. It was basically a matter of rewriting. ■

Filmed on an epic scale, the SHOGUN TV mini-series presents a colorful panoply of 17th-century Japanese history. The script ran 556 pages and included 1,062 scenes, filmed in 2,749 camera set-ups. A total of 761,000 feet of film (125 hours) was shot. Production sites included Toho Studios, Tokyo; Daiei Studios, Kyoto; Nagashima; Uji; and locations at Himeji, Hikone, Mishima and Fushi-momoyama castles. The interiors of the 17th-century castles were painstakingly recreated on several sound stages at Daiei Studios, Kyoto.

themselves, because that would become too confusing.

COMMENT: It was really more of a problem than I thought. You not only had to get it down to 12 hours, but beyond that, you had to get it down to two-and-a-half hours for the theatrical version.

CLAVELL: We even have a 17-minute version, which was a thing that we got together for Paramount's distributors overseas. They wanted to see the scope of the thing, so we made a 17-minute promo reel that begins in a storm and ends in the climactic battle. These editors are magicians. You have the storm. Blackthorne meets Toranaga. He sees the girl. He falls in love with the girl. He loses the girl. There's a fight. The Ninja attack. You see her die. You see her burial. You see the ships burned. Blackthorne and his crew are marooned. Then we cut to the hill where Toranaga is watching them start to build a new ship and the voice-over says: "Mariko, it was your karma to die gloriously and live forever. Anjin-san, my friend, it is your karma to never leave this land. And my karma—which I did not choose—my karma is to become Shogun." A big closeup of Mifune smiling, and that's it. You could tell the whole story in three minutes if you wished to.

COMMENT: Mifune, by the way, fascinates me. He is the only actor of whom I have been an avid fan going back many years and when I finally met him through a mutual friend in Japan and spent the day with him at his studio, where he was kind enough to give me the guided tour, I told him that I had seen THE SEVEN SAMURAI 14 times. He said that added up to 98 samurai, making his little joke. But there was something mystical about this man, even dressed in sport shirt and slacks and sandals, as he was that day. It was almost as if he were reincarnated from an earlier period of Japanese history. Did you get that feeling at all working with him?

CLAVELL: Yes, I think so. I think, too, that the kimono and other traditional garments that the Japanese men wear have something to do with it. Once you take a Japanese out of a business suit and put him into one of those, he looks samurai. Of course, that's what the samurai wore, so naturally they are going to look samurai.

QUESTION: But they act it a bit, too, don't they?

CLAVELL: Well, they prance and they stomp and usually they are barefooted, which helps. I knew a Japanese who was an awful person in the flesh. He was so rude and vulgar. I know enough about Japanese to know when they are sending you up and being rude and smiling to your face and, at the same time, saying how awful you are and just despising you, but when he put on his kimono and stomped around to and from the bath he was wonderful, because, of course, he was doing what he did best. But Mifune is something else. I couldn't think of anybody to play Toranaga other than Mifune, and he was wonderful in the role. He's a very nice person and became a friend of mine. I think he did SHOGUN because of me.

QUESTION: Had you known him prior to this project, or did you just meet him in the course of casting it?

CLAVELL: I met him subsequent to writing SHOGUN, but then I started writing it in 1970, so SHOGUN has been a ten-year project. Shortly after it came out I was trying to set it up as a motion picture and then, of course, I met Mifune. He is represented by a friend of mine. Mifune is something else.

QUESTION: On previous films that he has made for American companies he has voluntarily acted as a sort of unofficial technical advisor in authenticating things Japanese. Did he do any of that on this project?

CLAVELL: From the point of view of costumes, absolutely. And he drills people. He tells extras what to do. He's an enthusiast. He throws himself into it. He really worked very hard on SHOGUN to try to make it authentic because, without being immodest, I can say that there are an awful lot of Americans and other Westerners and even Russians and Chinese who look at Japanese people through the eyes of the book. They judge the Japanese in terms of SHOGUN. Mifune knew that if it came off on prime-time TV on NBC and it was a failure, 30 million people would see it, but that if it were a success 80 million plus would be watching it for five nights. I think it is going to be a success because Maurice Jarre's music is wonderful. The costumes are terrific. The girl is beautiful, and it's a hell of a good story. I'm not saying that because I wrote it, but because it's been so well dramatized and it works. The general level of SHOGUN is, in my opinion, the best produced, the best acted and the best costumed entertainment that I've ever seen.

QUESTION: I mentioned earlier the incredible amount of research you must have had to do in order to write SHOGUN. Did that include spending a great deal of time in Japan?

CLAVELL: Oh, absolutely. Of course, from a practical point of view, you don't necessarily research 16th-century Japan right in Japan. You have to go through museums, you study their art, you look at their drawings, you look at their pottery, their temples, and you read. You read supposed eye-witness accounts. The reporters of those days were Jesuits and they did a lot, apart from gun-running and other odd interferences, according to the Benedictines and Franciscans. At any rate, they were the people who wrote the reports and you have to find those reports. They are in the Vatican libraries or the London library or the London museums. There is some stuff in America also. You just look around until you find what you are looking for.

QUESTION: What did you find to be actually the richest source in terms of your research?

CLAVELL: As far as pure research was concerned, obviously the British Museum in London. That's the richest, because they've got more art, more pottery, more books concentrated there than anywhere else in the world. They have the genuine stuff of the artists of the particular day, the genuine Haiku, and so on, of Japan. I've been there quite a bit over a period of time. Obviously the more you travel and the more you see with your own eyes the easiest it is to persuade people that they are there. The whole point is to make them feel that they are there. On the other hand, Rider Haggard, who wrote KING SOLOMON'S MINES and all those other wonderful adventure stories about Africa, never went outside of Devon. He had never ever been to Africa, and yet he wrote those stories set in Africa and became famous for them, so it is not absolutely necessary to go to those places in order to become an expert on them.

QUESTION: Referring to that shift in point of view that you spoke of between the book, which was more of an overview of the Japanese civilization of the time, and the television series, which tells the story from Blackthorne's point of view, did you as an

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SCREENWRITER/PRODUCER TALKS ABOUT "SHOGUN"
Continued from Page 923

under those conditions for that period of time it takes its toll on everyone. And we were really isolated. It wasn't like: "Well, I'll be down here for five days and then I can get away for the weekend." Because if you wanted to get away for the weekend you would spend the better part of Saturday traveling to get to Tokyo or Kyoto in time for dinner and go to bed and get up in the morning and travel back again. So once we got down there, we were there. It was a strain on everybody, but there was a great goal which we were all working for and that was moving to Kyoto.

QUESTION: How long were you actually in Nagashima?

BERCOVICI: We filmed there for seven weeks. The work was especially demanding because of the size of the production and the amount of extras that we required. We had as many as 13 boats in the water at once, picture boats, plus our own camera boats and all of that. There were hundreds of extras on the beach. We were concerned about props and costumes and the logistics of moving everything around. Nagashima was truly a miracle. We got out of there on schedule and, as I told you before, beat the typhoon by minutes. Again, it's very much like the old story of the centipede who was asked which leg moved first and then couldn't walk anymore. We didn't have time to reflect in Nagashima; all we could do was keep going forward, and there would be moments of incredible frustration. We were filming the arrival of the galley at Anjiro for the first time, Jerry was out on the galley, and we had all the Samurai lined up on the shore and there was a camera on the shore and I was on the shore. Jerry and I had radiotelephones. This galley was rowed by 36 oarsmen. It didn't go very fast. We took the galley all the way out the headland. Jerry and I were talking on the phone. "Here we come. Can you see us yet?" "No, not yet," and timing it and all that and finally Jerry yells over the radio phone, "Roll 'em!" And I yell to the Japanese camera crew on shore, "Roll 'em!" The cameras roll, the mast of the galley appears beautifully around the headland, the nose of the galley appears—and then a motor boat goes through it.

QUESTION: Now we are shifting to your other function—that of screenwriter on SHOGUN. How much collaboration or consultation or whatever

did you do with Clavell in adapting his novel to screenplay form?

BERCOVICI: Well, Clavell made an act of faith—which to this day I don't understand, based on what I have no idea—and said, in effect, "Take it. It's yours." The one hurdle we had to get over was the language problem in the book. The book is all written in English, but the characters are speaking English, Japanese, Dutch, Spanish, Portuguese and Latin. Obviously you can't make a 12-hour movie for television in which people are speaking six different languages—and English the least. I took the approach to the material that I wanted to tell the story completely from John Blackthorne's point of view. What he knew, we knew. What he understood, we understood. What he learned, we learned and what he didn't understand, we didn't understand. Clavell and I had a long talk about this at his house and naturally, as the author of the novel, he was listening to me saying that I was going to tear out a lot of scenes that he had written. What he did was take a paperback copy of the novel, which he had up on the shelf, and he physically, literally ripped out all of the pages that I was talking about taking out of the story. He read what was left and the next day he handed me this mutilated copy and said, "It works. Go do it!" From then on the screenplay went very rapidly.

QUESTION: In the book Blackthorne eventually learns to speak Japanese with a certain fluency. How do you handle that on the screen?

BERCOVICI: Well, there is a noble ambition to the screen version of SHOGUN, which is that, in addition to being a terrific, very exciting and very entertaining movie (which it is), that it is also a Japanese lesson, that as Blackthorne learns Japanese, so do we, the audience. I'm speaking of very simple Japanese—probably a vocabulary of about 40 words. As we get towards the end of the story Blackthorne speaks in Japanese and we understand it, because we understand the word "hai", which means "yes". We understand "iye", which means "no". We have learned the word "wakarimasu", which means "I understand", and "wakarimasu ka", which means "Do you understand?". We have learned the word "isogi", which means "hurry" and the word "ima", which means "now". These are very simple words and the scenes in which Blackthorne speaks Japanese are very simple in terms of dialogue. The meaning is made clear by the physical action of the scene, and even if the

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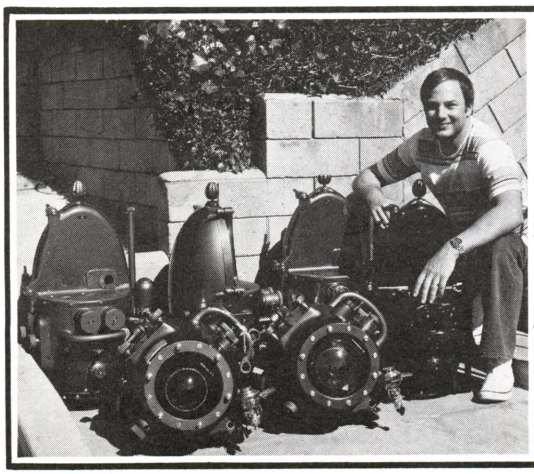

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audience has forgotten some of the words, they will not only be reminded of them in the scenes, but they will also understand the scene. I think what I was striving for was very much what Clavell did in the book, because the book, in a way, is a Japanese lesson—not only in terms of the culture and philosophy of Japan, but also the very limited use of Japanese language in the book. When you finish reading the book you have the illusion that you can understand Japanese. I think the audience will have the same reaction to the film.

QUESTION: Does the film version emphasize, as does the book, the tremendous chasm of understanding and communication that existed between East and West in those days?

BERCOVICI: Very much so. The film opens with John Blackthorne and the crew of the Erasmus *and we are seeing Europeans of the type we have seen before, granted that they are from the year 1600 and are wearing what today would be funny clothes—although, depending upon where you went in town, maybe not so funny. The Golden Hinde, which doubled as the* Erasmus *for us, is the type of vessel that we have seen before. We are familiar with these people. We recognize them and know who they are and immediately identify with them. However, when the* Erasmus *reaches Japan, we see a world we have never seen before, and as Blackthorne and his crew are rather astounded by it, so are we. But we are Westerners, we are basically Europeans, we are people who eat meat, we are people who behave and dress in a certain way, we are people who react to actions in a way that is totally contrary to the way the Japanese behave and live. To Blackthorne's eye and his crew's eye, they are absolute heathens. Immediately upon Blackthorne's arrival in Japan, he witnesses Omi, the village chief samurai, chopping off a man's head. It is absolutely horrific, and so Blackthorne and his men regard these people as savage heathens. The Japanese, on the other hand, regard Blackthorne and his men as barbarians. SHOGUN is really the story of the education of John Blackthorne and the education of us, the audience, along with him.*

QUESTION: Speaking of Blackthorne, what are your comments on Richard Chamberlain in that role?

BERCOVICI: Richard Chamberlain is the most professional actor I've ever dealt with. Just in terms of the physical hardships, I can't think of a role that was ever any harder to play. He spent weeks

at night working in a tank, being drenched with water. After a while the water turned green and cruddy and God knows what was in it, but he was in that water night after night after night. Richard had only six days off during the entire shooting schedule, but we took one of those days away from him, so he actually had five days free out of 130. He had a tremendous amount of dialogue. As I said before, the physical demands on him were extraordinary, and not only in the tank. During the filming of the escape from Osaka Castle he had to run up and down those stairs over and over again—up again, down again—and Jerry figured he'd keep going until Richard said, "I can't do it anymore. You've got it." A lot of actors would have said that. They'd have said, "You'd better love what you have, because I won't do it anymore." But the only thing that Richard ever said was, "Give me five minutes to catch my breath." His attitude carried over not only to the rest of the cast, but also to the crew. He was upbeat, he was enthused, he was professional. Every day when he came to work, not only did he know his lines, but he knew what the scene was all about, because he had done his homework. He gave us his all—and his all is terrific! ■

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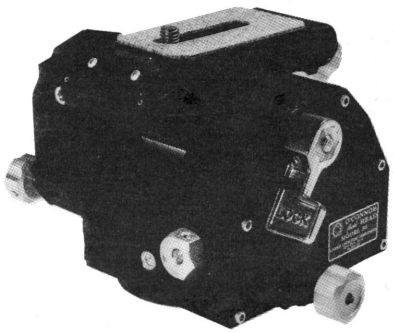

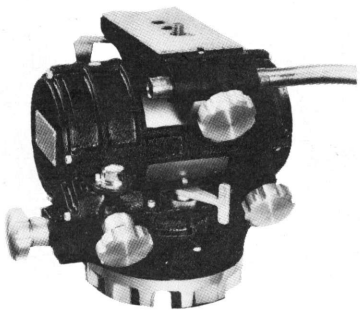

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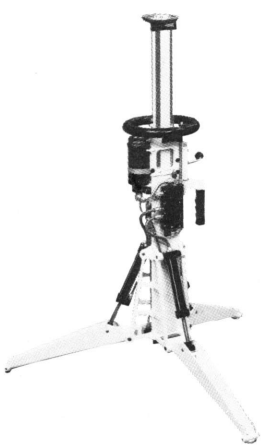

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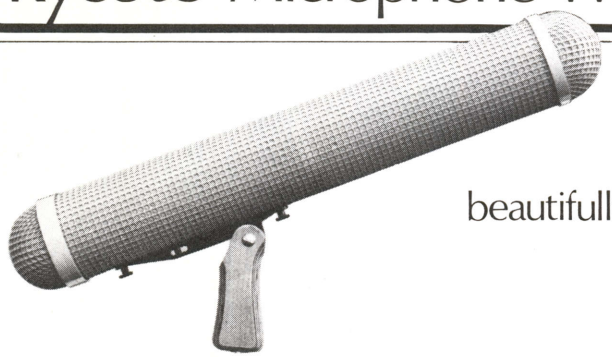

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Continued from Page 874

ernment's ANSI booklet on photographic standards.

The bottom line is that the numbers that appear in Chart 1 are the actual f-stop (T-stop) values to four decimal places. Chart 2 is a fairly accurate simplification derived by rounding off to one decimal place above f/1.4 and to full integers above f/16. These are the exact figures as specified by ANSI. (The values in parentheses are to an additional decimal place where I felt the accuracy was needed.)

The popular misconception of actual f-stop values stems from an over-simplification. Apparently the f/1.4142135 (which is actually the square root of 2) was rounded off to the popular f/1.4. Thus, the f/2.8, f/5.6, f/11 and f/22 were derived by doubling the f/1.4 one, two three and four times respectively. The original rounding-off error is compounded along the way until the f/22 is really an f/22.6274 which, when properly rounded off, yields an f/23, not f/22.

Now that the great f-stop mystery is solved, what does it all mean? Well, for me it doesn't mean much at all. I still call out stops as X and 1/3, and the numbers engraved on the lenses are correctly indexing the iris for full T-stop apertures. In other words, the T/11 mark is actually the T/11.3 aperture, as specified by ANSI standards, so there is no cause for concern. (So don't call for a T/11.3 or you'll drive the operator and assistant nuts.)

For those who like to call out the interval fractions by their actual numerical values, then Chart 2 will prove invaluable. A T/9.5 can be called out with the full confidence of knowing that the operator will precisely place the iris halfway between T/8 and T/11, assuming, of course, that he has read Chart 2. ■

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Continued from Page 945

author find that shift difficult to accept?

CLAVELL: Not at all, because I prefaced my remarks by saying that I'm a filmmaker and I've adapted other people's work. Like, for instance, THE GREAT ESCAPE and THE FLY. I invented the third act of THE FLY. It had only two acts as a short story. So I've had experience at doing this sort of thing, of translating from book to film. The other thing is, you have to compartmentalize yourself. I had a very difficult time getting SHOGUN onto the screen. This television production is a miracle, because the book came out in 1975, so it has taken almost five years to get it into film form. I sold the film rights to the other two books, KING RAT and TAI PAN, before they came out, but with SHOGUN producers would weigh the book and say, "How the hell are you going to make a film out of this?" And I would say, "You tell Blackthorne's story." They would say, "That's impossible. It's a book about the Japanese." I would say, "It's a love story. It's the story of an Englishman who goes to Japan and falls in love with this beautiful bird."

QUESTION: You've spoken very glowingly of Richard Chamberlain's performance as Blackthorne and I agree with you that he's a fine actor, but being an Englishman yourself, could you really accept him as an Englishman in this vehicle?

CLAVELL: Originally I wanted an Englishman to do it. Then I suddenly realized that this is 12 hours of television being made for middle America, with NBC putting up a huge amount of money. In filmmaking you've got to be practical. You've also got to be fiscally responsible, responsible to the money, because if you fail, you stop other people from getting money to make films. It's very important to be responsible, and I deplore the childish attitude of certain filmmakers who don't care about such things. All they want to do is put over their point of view. But they've forgotten that the basic rule is entertainment. You've got to entertain people. That doesn't necessarily mean that you've got to make them laugh all the time, but you've got to excite them. Primarily, you've got to entertain them. John Ford found out a long time ago that you do two things to make a good movie. You open it with a man galloping into town and you end it with a kiss. In other words, you start out with

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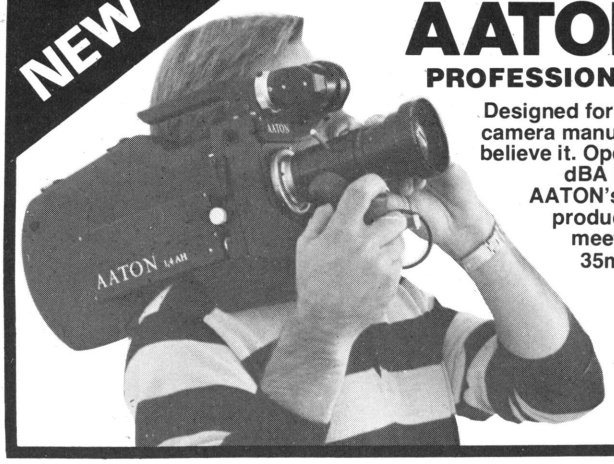

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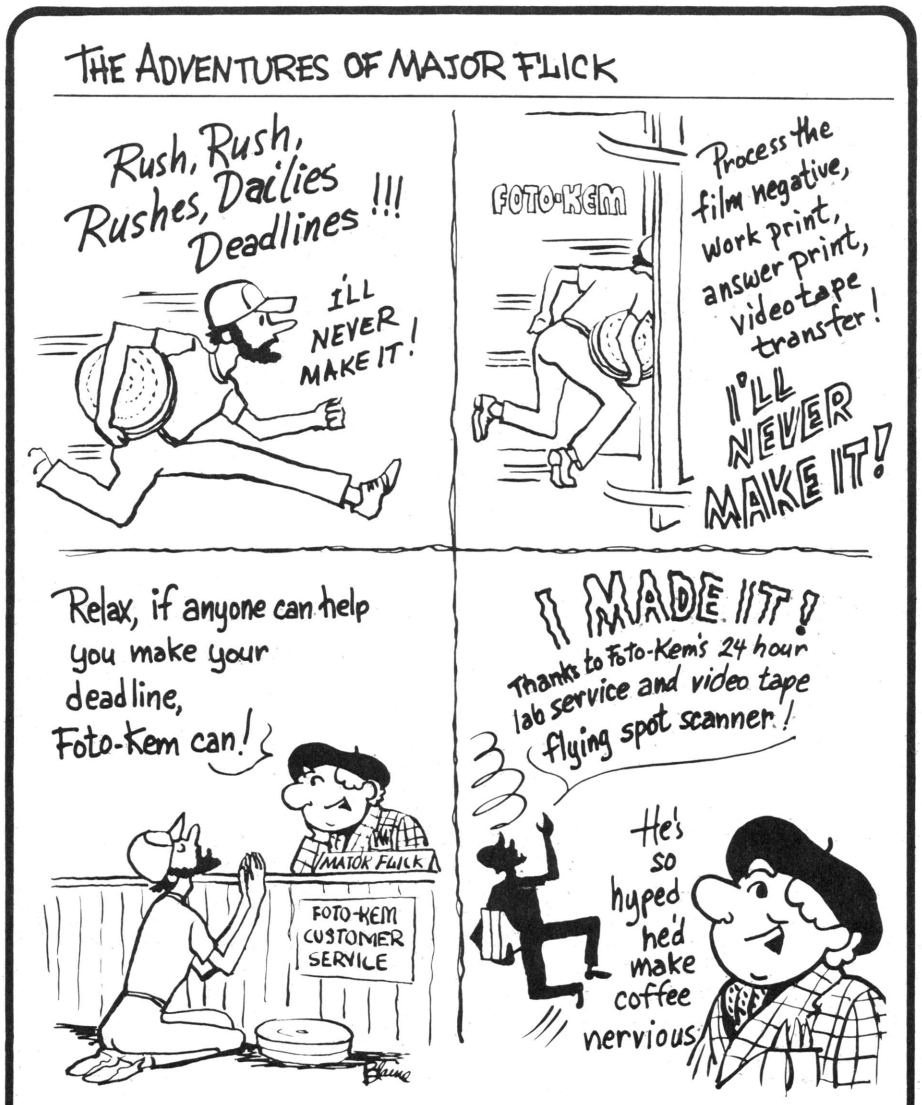
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action and you end it happily. Whatever happens in between should, at the end, send you out with a good feeling, not a bad feeling. Unfortunately a lot of people nowadays—and I've done it myself—get whipped up in their own hatreds or causes or points of view, and some of them should never be put into film form.

QUESTION: How much were you present during the actual filming in Japan?

CLAVELL: About a month. I was there setting it up, pre-production, and then for a couple of weeks after we started shooting. Once we started shooting my job was finished, because I had Eric there, who is a wonderful producer (he produced WASHINGTON BEHIND CLOSED DOORS, and so forth). And there were various other executives there, plus production managers, associate producers and assistants, plus Jerry London to direct. It was my responsibility to see that they started on time, with money, with the right cast, and then it was up to them. I had to protect the company and make sure the base was secure because, as you know, when you're dealing with such vast amounts of money so many thousands of miles away, studio executives get nervous. They need to be calmed, so my job was to spread calm and tell the buggers to keep going.

QUESTION: Do you have any comments on the photography of SHOGUN?

CLAVELL: Andy Laszlo, the Director of Photography, was wonderful. He is a very interesting man and one of the few people that I've ever known who understands the concepts of "harmony" and "duty" as the Japanese revere those qualities. His duty to SHOGUN surpassed itself. On the big screen it's some of the most beautiful photography I've ever seen, and done under the most difficult circumstances. It's not easy, as you know, shooting abroad, but Andy did a terrific job. You've got to see the film itself to appreciate it. If I were to have the opportunity of making a film I would, number one, ask for Andy Laszlo because his qualities are such that he is a kind, gentle, wonderful person who really enjoys his craft and really wants to be the best.

COMMENT: You seem to have a very special appreciation of the art of cinematography.

CLAVELL: Sam Leavitt was my first cameraman. It was on the first picture I

wrote, produced and directed, a 14-day epic for Fox called FIVE GATES TO HELL. It was shot as a "B" picture, but they released it as an "A" picture. Old Sam was great. He used to chomp on his cigar and give out with a long and furious stream of Anglo-Saxon expletives. He said, "You stage 'em and I'll shoot 'em." He taught me the value of being a director, which is not very much if you don't know what the hell you're doing.

QUESTION: While there's a very direct affinity between screenwriting and directing, very rarely do you find a novelist who is also a director. The one is a rather lonely, introverted pursuit, while the other is exactly the opposite. I was wondering if you've ever had any difficulty shifting gears when you've put on your other hat as a director?

CLAVELL: Well, my wife hates me when I'm a director. She says I'm obnoxious and vulgar and rotten and my Irish temper comes out. She's probably right, although I don't think my reputation is one of violence. I like controlling things. I like having my way and I like doing things as I want to do them, but I try to be like the Asian bamboo and persuade people. One of my orders hopefully is a suggestion, which is a nice way of doing it, I think. No, I don't have any problem shifting gears. I get such a lot of raw material when I'm making films, because writing is about people. The sunset is worth one line. What's important is who is looking at the sunset, or what is she or they doing in the sunset; it's people. If you are a writer/director or a producer/director on a film people come and talk to you. When you are sitting around waiting for a shot you start shooting the breeze about all sorts of things. If you use your ears and eyes you can learn a great deal. But eventually I get bored with that sort of life and I go into a cocoon and try to construct it on paper. "Noble House", my new book which comes out in the spring, took three years and two months and two days to write—and that's apart from all the research. But three years and two months and two days of sitting in a room, seven days a week, just thinking about it. After that I can't wait to get to Paramount, can't wait to get out of the house, can't wait to talk to you for a while. Then eventually I'm going to get tired of that and by that time I will have learned enough to start another book.

QUESTION: As a novelist/screenwriter/producer/director/filmmaker you are obviously an artisan of vast versatility. Be that as it may, which do

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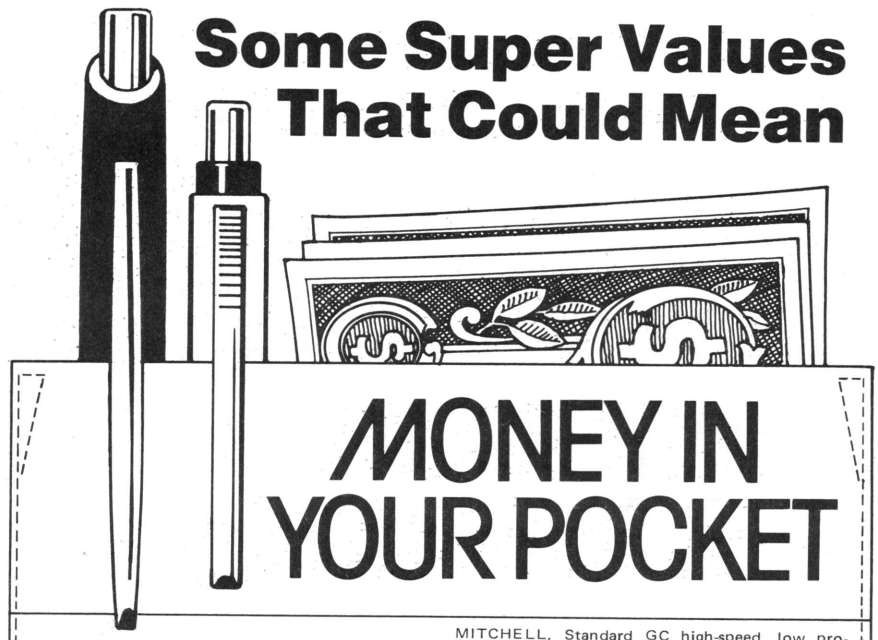

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you yourself regard as your most outstanding skill?

CLAVELL: I'll put the answer to your question this way: If I have any value at all it is as a storyteller. In our film form storytelling is essential, even more so than in a book. In a book you can go off into flights of fancy, you can have introspection, and so on and so on. In a film somebody does something. You listen to them and you watch them react. What's in their head you can only get by implication from the actor. Either he verbalizes it or he looks it, so that film storytelling is slightly different from, say, being a best-selling author. But the same procedure works. It's just telling a story. The thing about SHOGUN is that it's a crackingly good story. But one thing I've learned from screenwriting is: when in doubt, cut it out. While SHOGUN is a very, very big book, it's a very lean story because the writing is lean. There aren't too many descriptions of the sunset. As I said earlier, the sunset is worth one line. When Mariko is looking at the sunset she's worried that when the sun touches the horizon that's when she's got to slit her throat and commit hara-kiri; that's when the sunset becomes important.

QUESTION: With films becoming ever more expensive to produce, what elements do you think filmmakers must be especially aware of these days?

CLAVELL: What you have to do is be very careful. If you are a filmmaker and you become the director, or the writer/producer/director, and suddenly you've got all this power over 20 actors and 50 crew and three or four million dollars and you can do whatever you like with it, you have to be very responsible to your actors and your story and to your money and to the public, because ours is an entertainment business. And, yes, you have to have a point of view, because without a point of view a writer is not a writer; he's just nothing. But you have to be very, very careful that you differentiate between propaganda, a point of view and the reasons for doing it. Before I personally make a film, I ask myself the question: Why should anybody pay good money to see this? If I can't answer that question, I'm not going to make it. Of course, I do that based on my own experience, because in the past when I didn't think about it I made some mistakes and the films were not successful. So perhaps the first thing you as a filmmaker should ask yourself is whether or not what you have in mind is entertainment, because if it isn't, then you shouldn't be in the game. ■

BEHIND—THE—SCENES DIARY ON "SHOGUN"
Continued from Page 930

downpour, raining like crazy. Fortunate to get out with all the rain. On schedule. Train to Kyoto.

DAY 60—First day in Kyoto at Hikone, the castle. 1½ hours getting there. Weather in and out. Cloudy, sunny, rain. Mismatching. Typhoon is coming. It blew away all our sets in Nagashima.

DAY 61—Today we tried to finish the garden at Hikone, we traveled 1½ hours. Big rain storm wiped us out. Drove another 1½ hours back to the studio and shot cover set of Blackthorne room. We shot ½ day and lost another ½ day due to weather. Another typhoon coming in. Expect a lot of wet weather. NOTE: *THE GOLDEN HINDE (ERASMUS)* IS INOPERABLE TO SAIL, MUST PIGGY BACK ABOARD FREIGHTER AND SHIP IT BACK TO SAN FRANCISCO. ESTIMATED COST: ½ MILLION DOLLARS (THIS WAS NOT DONE—SAILED APRIL 1980 TO ENGLAND).

DAY 62—Streets of Shochiku, Anjiro street with Blackthorne and Mariko. Shot till 2 A.M.

DAY 63—Rain tonight. Put up tarp to finish Mishima scene and finish John Rhys-Davies, Rodrigues. Worked till 2 A.M. It is raining. Again. . .

DAY 64—Got lucky and finished the street sequences, no rain. Off to Himeji today. The date is Sept. 8th. Moving to Himeji Castle. Half way through the show. Crowd control at the castle?

DAY 65—Yoko Shimada is in the hospital with an appendicitis attack. Have to rearrange the whole schedule. Going into castle. Shot without her and did four pages. Castle looked great. Very finicky about getting us out by 4:30. Panic to get the last shot. Good scope but pressure of getting in and out. They didn't turn off loud speaker. Must loop dialogue.

DAY 66—Mariko does not have appendicitis. Shot Mariko seppuku scene. Tomorrow, our last day in Himeji, back to Kyoto.

DAY 67—Finished Himeji. Tomorrow to Hikone to finish day rained out. Castle gate scenes.

DAY 68—Big opening production number in the front of Hikone castle. Saw a tape transfer edited version of the feature

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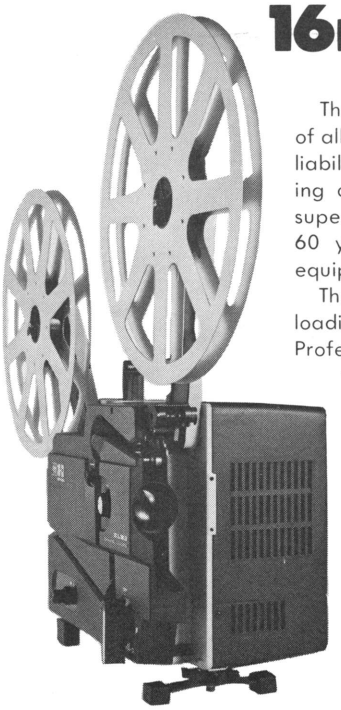

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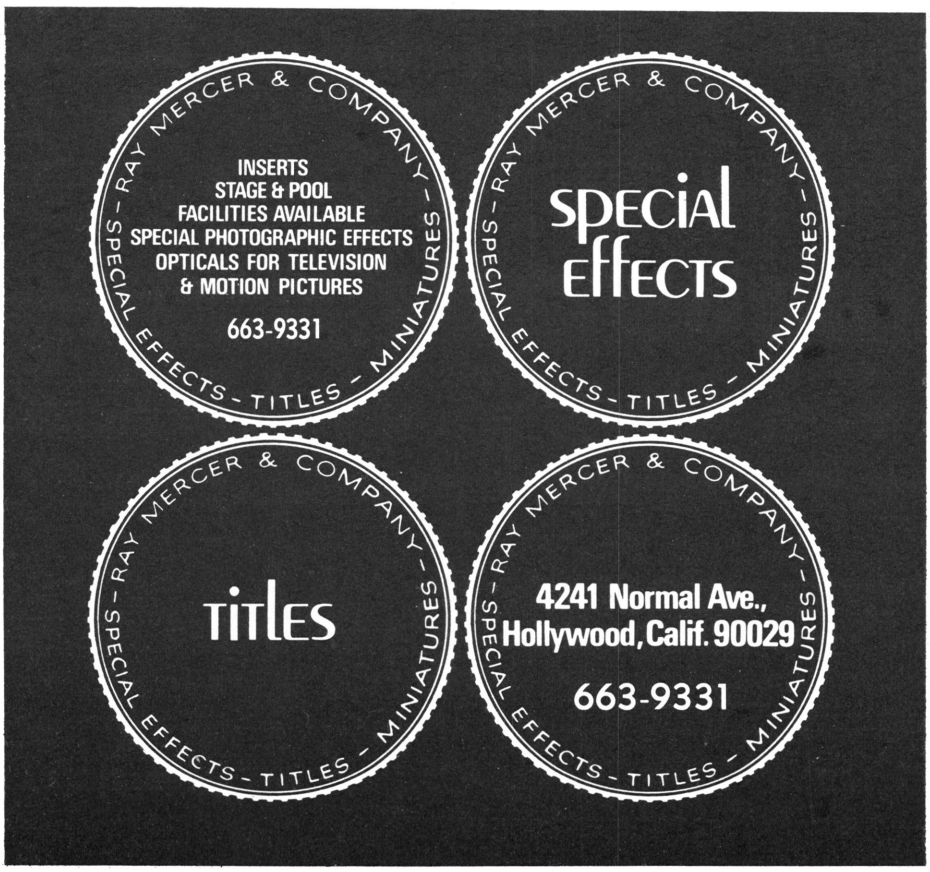

from L.A. Good first cut.

SEPTEMBER 13TH—Went to Tokyo this weekend to do casting. Back in Kyoto on the 16th.

DAY 69—Kameoka today to do the trecks, long walks with horses and 100 troops. Very beautiful.

DAY 70—Hikone—Mad dance at the castle. A late start. Disorganized. 4½ pages—difficult.

DAY 71—Continued the escape from Osaka. Crowd problems.

DAY 72—September 20th—Continuation of the mad dance, escape from Osaka. Richard was great—did crazy dance down the stairs six times. Had a day/night call. Shot night escape down the road.

DAY 73—Friday night, the 21st—Cathedral site. Mariko with Alvito. Good set Joe Jennings built. Uji area where we are doing many scenes. Finished about 2:30 A.M. Yoko Shimada, Mariko, excellent.

DAY 74—Scene of Buntaro firing the arrows. Arrow problems. Special Effects.

DAY 75—Kameoka. Rained, then clear—trecks with 100 of the samurai.

DAY 76—Stage—Fujiko gun scene, five pages. Candy Bergen visited. 80 days in the can—on schedule now, 53 days to go.

DAYS 77/78—Rained out at Hikone Castle. Shot on the stage—five pages. Blackthorne's house. Typhoon coming in. No exteriors until weather clears up.

This weekend, to Tokyo to cast part of Lady Ochiba.

DAYS 79/80—Prison yard entrance and exit got washed out—typhoon—went on stage—shot nude scene—Mariko and Blackthorne take a bath.

OCTOBER 2ND—Yoko Shimada ill, shut down. Lose day.

DAY 81—OCTOBER 3RD—Scene prior to earthquake, started to rain about 4:00 o'clock, shot the last shot in the rain. Tomorrow is big earthquake effect.

DAY 82—Today the earthquake, couldn't get charges to blow the dirt. Tried twice—on 3rd try, our effects man, Robert Dawson was working on the charges, it collapsed, burying him and one of his assistants, digging him out—the day was a total wipeout. The earthquake effect

didn't work. The police came in because they felt there was negligence—there wasn't. The police have impounded Uji—This week we have lost two days of shooting.

OCTOBER 5—Area wasn't impounded—Japanese crew refused to shoot. Custom is—after an accident you shut down. Tried logic. In three weeks could reconstruct everything to be sure it is safe. Wasn't one of our better weeks.

DAYS 83/84—Fushimi Castle—crowd problems. Raining and sunny. Scope. Yokose Inn for day and night. Light goes every day at 4:00 P.M. Six hrs. of shooting time.

DAYS 85/86—Nara. First bridge sequence—weather great. Bridge—great. Horses didn't work well. Riding shots using doubles. Stuntman fell—stepped on by horse—to the hospital. Lady double couldn't ride horse either. Chamberlain's stand-in on horse—bucked, fell over, knocked the sound cart over. Animals awful. Tomorrow is a holiday.

DAY 87—Work at Uji—Toranaga's scene and Yabu's seppuku. 100 extras. Trouble with horses. Japanese horses are not picture horses. Falcon was nervous. Crew working well after pep talk. 46 days to shoot. Scheduled a running of edited first two hrs. for cast and crew on Saturday, the 20th of October.

DAYS 88/89—Toranaga arriving to camp. Trecks 100 extras. Mifune fell off his horse—bruised badly. These horses are crazy.

DAY 90—Anjiro scenes at Uji. Rock scenes. Blackthorne, Fujiko, and Alvito. Moved to Daiei studios and did two additional scenes that weren't on the schedule. No mishaps.

DAY 91—Stage. Tea house ceremony scene. A beautiful sequence.

DAY 92—In and out of prison. Also retake of the earthquake. Six cameras, everything ready, lots of prep. Earth collapsed, so much smoke, nothing matched. Reshoot the coverage with lots of smoke.

DAY 93—Mishima Inn. Finished about 4:00. Raining. Wigs and makeup very bad.

DAY 94—Night Ninja attack. Rained. Typhoon—65 miles an hour winds—moved to studio. No sets were built. Lost another day. Pack everything and go to Hikone—a two hour drive—started shooting by 8:30 P.M.—got the night's

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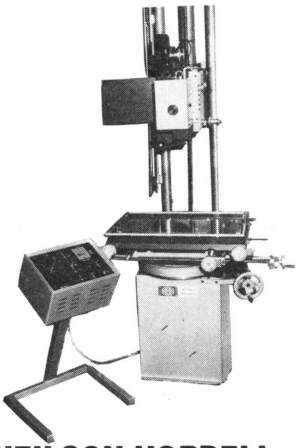

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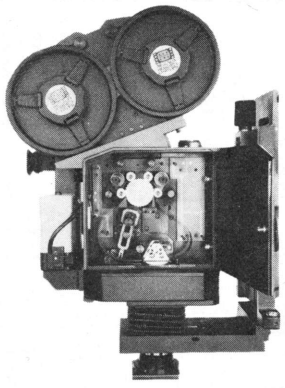

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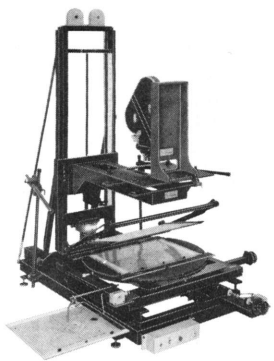

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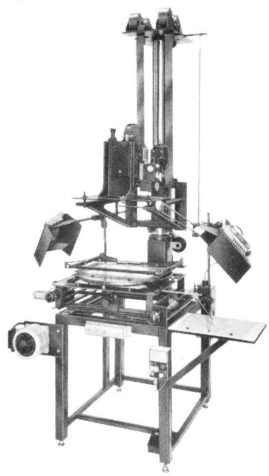

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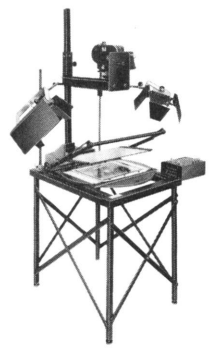

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SATURDAY, OCTOBER 20—The first cut screening. Went very well, even though the projector broke down three times.

DAY 95—Mariko funeral scene. Four cameras, difficult scene to stage. 100 extras, priests and had one palanquin to burn.

DAY 96—Zataki's arrival—shot nine pages of a master in the morning. Snakes.

Generator wouldn't convert D.C.—A.C. power—no lights—also out of 1000 rolls of film—shooting short ends. Reloading so much—costing time—frustrating day. Film ordered from Hong Kong.

DAY 97—Finished Zataki scene—day.

DAY 98—Waited for 13 reloads today.

DAY 99—Toranaga gives Kiku to Blackthorne. Six pages. Finished 2:30 A.M.

SUNDAY the 28TH—The Japanese crew had a strike meeting. (They didn't strike.)

DAY 100—OCTOBER 29. Scene 1061 with 400 troops. Biggest scene in picture—horses a big problem and Mifune was reluctant to get on the horse again—he did. Hiromatsu's horse rolled over on him—sprained ankle. Looks like there was 1000 troops. 100th DAY PARTY.

DAY 101—Night—Making Blackthorne a Samurai. Tough staging.

DAY 102—Continue making Blackthorne Samurai, but Frankie Sakai, plays Yabu, not here. Had to double him. Supposed to do a scene in the evening with a horse—no horse. The assistant directors forgot to order it. Now finished all exterior work except for one night later in November.

DAY 103—Stage Ninja attack. Had to improvise to make the downstairs set work for the upstairs—Ninja stuntmen overact.

DAY 104—November 1st—The hornpipe dance. Richard Chamberlain was great. Supposed to have two cameras but only one was ordered.

DAY 105—Finished hornpipe, also scene with two maids and Blackthorne.

DAY 106—The scene in Gyoko's house. Six pages. Didn't get the one nude double we ordered.

DAY 107—Mariko's room and the Ninja attack sequence. Special effects throwing shurikens and blow out of a door.

DAY 108—17 page scene in Toranaga's audience room. Falcon was dangerous. Shot five pages in one direction. Scene is the longest I ever shot. Performances are excellent.

DAY 109—Continued sequence in Toranaga's audience room. Mifune more comfortable with Falcon. Nine pages out of the 17 finished.

DAY 110—Finished the 17 pages. Eight pages today, our new high. All actors knew their lines. Scene great. We were under pressure. Japanese crew refused to work overtime.

DAY 111—Audience room with Alvito and Toranaga and Ninja attack Blackthorne. 22 more days. Ninja stuntman did not understand about acting—15 takes.

DAY 112—21 days left—completion Ninja attack. 6-3/8 pages.

DAY 113—Scene of Yabu killing Yoshinaka.

DAY 114—Mariko's death, door blows open and kills Mariko—special effects. Worried about getting the negative of SHOGUN out of the country. (No problem, customs okayed it.)

DAY 115—Attempted seppuku of Blackthorne. Seven pages.

DAY 116—Scene 603, Blackthorne's attempted seppuku and the cellar to finish Yabu—17 days to go.

DAY 117—Toranaga's audience hall in Yedo and Buntaro and Mariko when he breaks the sword. Effect worked well. Mariko's performance gets better every day. Paintings in the audience room—terrific. Japanese art director, Mr. Nishida—very talented. Toranaga's grandchildren scene. Two cameras.

DAY 118—Finished scenes in Yedo audience room—Blackthorne's bedroom in Yedo castle. Three-day holiday now. 15 more shooting days—maybe less.

DAY 119—Blackthorne getting his eyes worked on—Ladies and Blackthorne having sake. Japanese crew not putting out. No prop man on the set.

DAY 120—Last scene with Father Alvito, Damien Thomas, ex-communication scene. Difficult scene.

DAY 121—Night. Everything went wrong.

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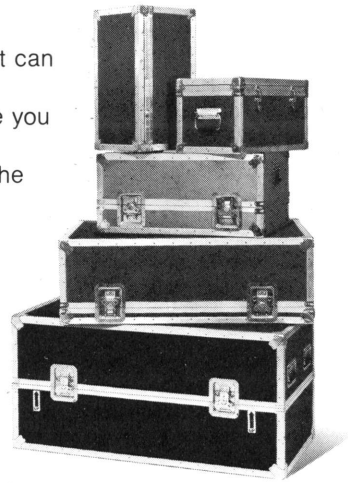

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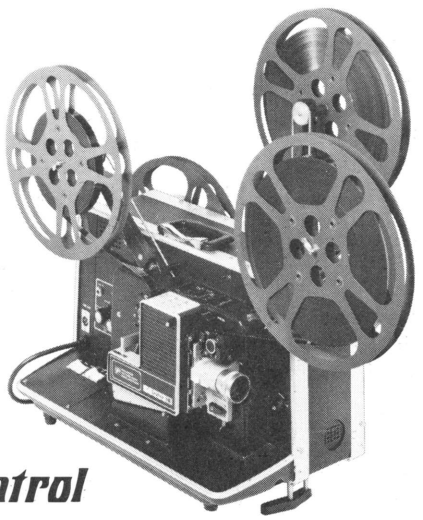

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DAY 122—No rain. Finished street—brought in professional bowman who was worse than the actor, couldn't even thread bow.

DAY 123—November 30. First tent scene. 3½ pages. Props weren't there. We may have to reshoot some of the night work. The frustrations of making this film have come basically from the cultural differences.

DAY 124—December 3rd. Tent scene with Toranaga. Mifune's last day. Party and drinks. Shooting Saturday to give crew chance to pack up. Estimate finish on Tuesday, the 11th.

DAY 125—Mariko's bedroom and Ninja attack.

DAY 126—Ochiba's birthday party. 120 extras. Great set.

DAY 127—Finished Ochiba's birthday. Farewell for Frankie Sakai and Yoko Shimada. Gifts. Tearful.

DAY 128—December 7. Prison—120 extras—big fight scene. Set fabulous; staging of the extras was overwhelming. 15 pages left. Michael Hordern, Father Domingo, very good.

DAY 129—Saturday the 8th of December—worked today to try and get ahead. Shot 10-3/8 pages today which is new record. Domingo is brilliant. Five pages left.

DAY 130—WE DID IT! Finished show Monday night at 10:30, three days ahead of schedule. It was like a New Year's Eve. Finished in the prison. End of epic.

JANUARY 2ND, 1980—Los Angeles, Paramount editing rooms. Publicity meeting. NBC. Composer meetings. Constant editing for the next five months.

JUNE 26TH—Started dubbing—scoring with Maurice Jarre.

JULY/AUG. Continue dubbing and making final composite prints.

SEPT. 14/19—SHOGUN week on NBC. ■

PHOTOGRAPHING "SHOGUN" ON AN EPIC SCALE

Continued from Page 919

ficult portion of the script, all we could think of was that now we still had three times as long to go in order to finish the project. We were scheduled to move to a location called Nagashima, which I found later meant "Long Island". It seemed ironic that a person who lives on Long Island in New York should find himself in Japan working in a place called Long Island.

It is interesting to note that while the Japanese turn out some of the more artistic films in the way of photography and composition, I was appalled to see the state of the equipment that was in use at Toho Studios. I was even more amazed to see the results that the Japanese gaffers could achieve by using lights with no barndoors on antiquated stands that were not focusable. Through the use of a little bit of plastic in front of the lens of such a light they would come up with some truly beautiful lighting effects. I learned quite a bit from them, but I also learned that if we were to work according to those methods, I would have to spend 24 months in Japan, instead of the projected eight. So right from the beginning, after having toured the studio, I realized that we were going to have to make some drastic changes.

The original plan had been that, with the exception of the director, myself, the art director, the head property man and the special effects men, most of the crews would be made up of local Japanese technicians from the Toho Studios labor pool. Then I found out when I talked with the head of the grip department, for instance, that there wasn't a single grip available who knew how to work a crab dolly. I found out, on talking with the electrical department, that none of the lights had barndoors, none of them had screens, none of them had diffusion. The grip department, I was told, had never worked with Century Stands, with flags, with nets. Consequently, I was a little bit uneasy and I found myself in the position where, as a cinematographer, not only was I doing the tasks that are generally associated with duties of the cinematographer in the preparation of a motion picture, but, all of a sudden, I was designing such pieces of basic equipment as tie-down chains and cut blocks. I even had to design a slate. Our film was going to be edited by an American editing staff and the Japanese slate is a curious little device with Japanese symbols scribbled onto it with chalk. Obviously, this just wouldn't do.

Consequently, I had to design the slates, but since everything in Japan is done very, very professionally and very

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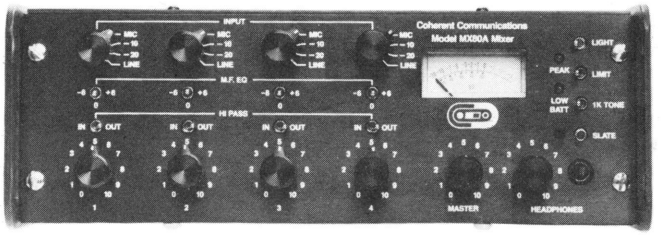

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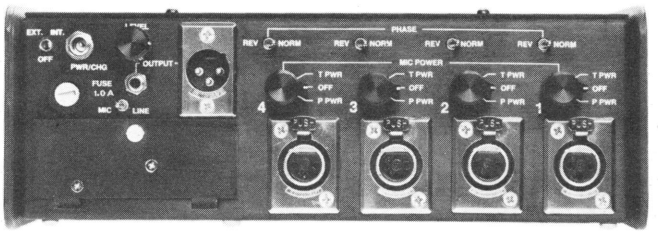

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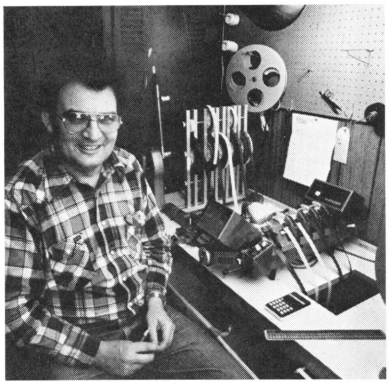

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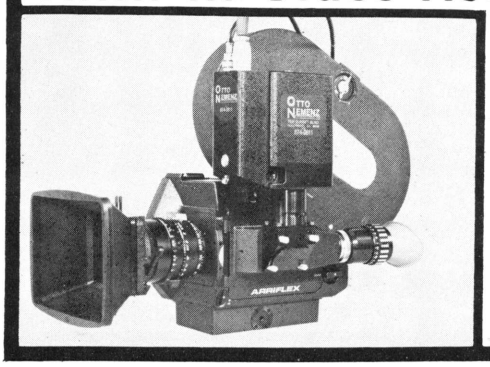

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much by the numbers, I found it difficult to explain how to make our type of slate. So rather than try to explain it, I asked if I could make the first one. I was shown into the carpenter shop at Toho where I immediately earned some admiration from the people who just didn't want to believe that a cinematographer would not only operate a saw, but would know *how* to operate a saw. While I earned some admiration there, I was also advised in a friendly manner by some people who later became my friends and very close associates that a person in my position never does that sort of thing. Be that as it may, I designed and built the first slate and it turned out very successfully. We built several of them and when some were damaged in production, we kept having them rebuilt. I wouldn't be surprised if some of the pictures made in Japan today, at least at the Toho Studios, use the same slating system.

The selection of the Japanese crews was a little more difficult. There are no unions in Japan, but there are very, very close knit groups associated with every studio in which a person will start out on the bottom rung of the ladder and work himself up in whatever phase of film production he would like to end up in. They learn on the way up and I must say that when I finally had my choice of camera assistants, they turned out to be, without exception, excellent technicians. They were "deadeye" camera assistants and the most conscientious people I've ever worked with.

For example, some of them had never worked with the Panahead, because Japanese cameramen prefer to work with a free head. However, I wanted the Panahead because it is a wonderful piece of equipment with a built-in wedge and the balancing mechanism and the rod that keeps the finder level. I just couldn't see how we could operate without it.

One night, instead of going home after I had gently advised them that, in my opinion, they really should know such an important piece of equipment, they stayed in the studio all night long. The following morning I was greeted with bloodshot eyes and a night's growth of stubble, but they all had smiling faces and were elated over the fact that they had learned the equipment. They told me that while they had let me down the day before, they now were very, very pleased that they had corrected their mistake and had fulfilled what was, in their opinion, expected by me. That was their attitude. None of them went off to sulk; all of them did something about it and consistently tried to do better. Consequently, I really grew to love these guys. They were just a great bunch of people to work with and I miss them and I hope that one of these

days our paths will cross again.

When I arrived in Japan it had been predetermined that we would have two camera crews for the entire picture, even though we would not always be using two cameras. I had envisioned two full complements of cameras and accessories with, of course, the necessary back-up cameras and back-up equipment, in view of the fact that we would be working in remote areas where we would not be able to call for Panavision equipment on a moment's notice. I also envisioned two camera crews, which would consist of two camera operators, two first assistants and two second assistants.

I found out that Japanese film crews are made up somewhat differently from ours and that in Japan the cinematographer himself has a function that is different from his American counterpart. I think that in the long run the operation is almost the same, but it is broken down somewhat differently. For example, a key member of the cinematographer's crew is the lighting director, which, in my mind, would be comparable to our gaffer, even though I think the lighting director in Japan works a little more independently from the cinematographer in being able to carry out some of his ideas as to how the scene should be lit.

The Japanese camera crew consists of a number one assistant, who is analogous to the camera operator in America. Then you have the focus-puller, who would be the same as our first assistant. Then you have a second assistant and a third assistant, who is concerned, believe it or not, with setting cutters to get reflections and lights out of the lens. This surprised me because in the States we generally have one of the grips help out with setting the cutters. What surprised me even further was that they do this not through the use of such standard equipment as Century Stands, flags and cutters, such as we use; they do it in the most primitive way.

On one occasion I was looking for some assistants when we were ready to shoot and I spotted them on top of a set, three of them, trying to clip on and tape a piece of crudely torn black paper that was going to cut some reflection out of a lens, but in doing so, they also cut the light right off the actor. They were very conscientious in carrying out their assigned task, which was to cut the light out of the lens, but in their singlemindedness they totally overlooked the function of the light, which was to light the actor.

Additional assistants on the camera crew, and they may vary in number from three to four, perform such functions as carrying the cases, assisting the second and third assistants, loading and unloading the magazines and doing the book-

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keeping, which can be very extensive. It seems like a lot of people, but I suppose that in a country like Japan, where there is such overpopulation, it is a good way of keeping people moving and trained and earning a living. At times, on the smaller sets, I must say that all the extra personnel did get in the way.

We succeeded in establishing some of our ways of operation, in that the lighting director did function in the capacity of a gaffer and that the lighting really was done according to my requirements and desires and under my complete direction and supervision. Also, the camera operator was not a first assistant or, if he wanted to be called that, it was in name only. He was a camera operator and the assistants functioned in assigned tasks very much in the same way as they would in America.

Mainly because of the lack of accurate communication which became so costly in time, we had decided to have a camera operator come over from the States and, later on, in order to increase our production speed, we brought in a couple of grips and a gaffer to help. This we had hoped would not create any friction and it really didn't, but it vastly improved the production and was certainly very instrumental in helping us remain on schedule, while at the same time maintaining the high quality of work that we had started out with.

During our eight-month shooting schedule in Japan, almost everything we did was unusual. For example, working on the Japanese galley, which was pulled rather than rowed by local fisherman dressed as Samurais, there was hardly enough room for them and the cast. In addition the craft was loaded down with the crew and equipment. At sea such a galley, while completely seaworthy, was not what I would consider the steadiest conveyance ever.

In the course of our eight-month schedule, the changing seasons presented a problem in that certain scenes were started at the beginning of the summer and then picked up in a direct cut at the beginning of the fall, the typhoon season, so the one biggest problem we had, of course, was the elements.

Almost all of our important pieces of equipment—and certainly all of our camera equipment—had to be brought in from Hong Kong or the States. One would think this would be a relatively simple matter of putting something on the plane, getting it off the plane the following day and bringing it to the set in a taxicab or a special car. But it doesn't quite work that way in Japan. Customs sometimes takes two days, three days or three weeks. It is totally unpredictable. In fact, an entire Panavision camera with all of its support

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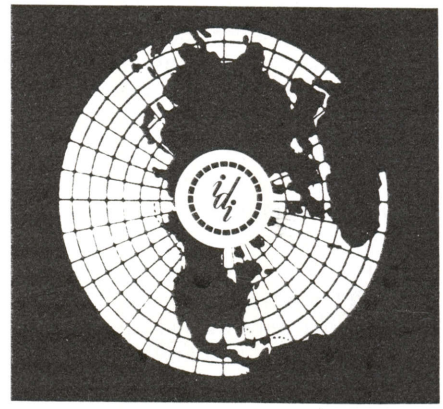

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equipment had to be hand-carried as hand luggage from Hong Kong so that we could have it ready on the day of shooting when it was needed. To assemble matching sets of filters for two cameras turned into an almost impossible task. It may be difficult to believe that certain filters, ordered long in advance of the first day of shooting, were arriving toward the eighth month of production, at a time when one of the cameras had already been wrapped and dismissed.

When we worked at the village of Anjiro, the top of the hill, the entire hillside, the bottom of the hill and the dock area were all in the picture. This was our set, in fact, and we either found ourselves jockeying tons of equipment from one end of the set to the other, or we were running four-wheel-drive vehicles up and down the hill to bring the equipment down to us as needed. It was a difficult and time-consuming operation. The heat was unbearable, as was the humidity, and when you go like that for a period of eight months it begins to tell on cast and crew.

One of our most interesting sequences was that portraying Lady Mariko's *seppuku* (ritual suicide), which takes place in one of the beautifully manicured formal gardens of Himeji Castle, which is a giant, excellently preserved, beautiful, beautiful place. It is considered a national treasure which thousands of people visit daily. On one of our summer location surveys when we went through the castle grounds and picked a location and secured permission to use it, we were told that we could not interfere with that operation. Then we were told all the limitations concerning who could come in, how many people could come in, what type of equipment could be brought in, what type of equipment could *not* be brought in and where the equipment could be stored.

We finally worked out the logistics of all that and went to the additional expense of building special pieces of equipment and accommodations, such as bridges over the walls so that the electrical cables would not have to be lowered to rest on the shingles, which were priceless and practically irreplaceable. Then, after all of that, a fuse on the generator that probably cost a dollar and a half blew and we didn't have a spare. Furthermore, in the entire town of Himeji there was no such animal as a fuse that would fit this generator. So there we were with all this equipment and preparation, and it was totally useless. We had arc lights that couldn't be lighted. But fortunately we had a gorgeous day and the sequence turned out exactly as planned without the necessary back-up equipment, which really had been put there not so much for

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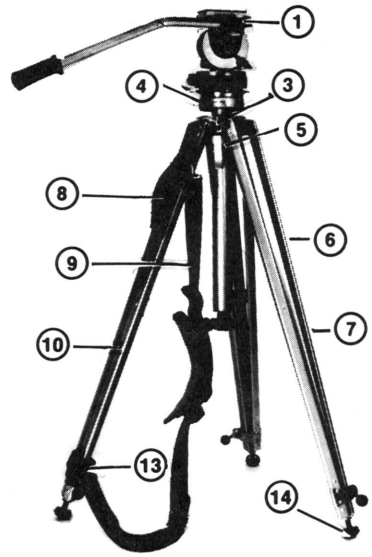

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the purpose of shooting, but in case we did not have the type of day we had hoped to get in this location.

The castle, at the time when it was built, was meticulously constructed in such a way as to make the approach to the main building difficult, so that in case of an attack the enemy couldn't just walk right in. The paths get narrower and narrower and the stairs get steeper and steeper as you get closer to the main building. You have to go through many more gates, some of which are very difficult to negotiate, so that at the time when the castle was vulnerable to attack, attackers could easily be destroyed.

That was fine, but all of our equipment had to be hand-carried up those same paths and stairs day in and day out. I myself would occasionally pick up a camera case or a battery in order to give a hand to an overworked crew but, to tell the truth, just carrying my light meter up and down gave me a little bit of a problem. When we did manage to hand-carry a crab dolly or a crane (which had to be first disassembled then reassembled on the location), the shots that we got were spectacular. So the final results were very, very gratifying.

Then there was the filming of the Ninja attack. Ninjas are assassins who are traditionally dressed in black, with only a very small portion of their faces showing (and painted black) so that they can melt into the darkness of the night. How do you photograph Ninjas dressed in black in the middle of the night and still see them on television? How do you photograph them in a castle that is normally lit by little Japanese lanterns and candles and oil lamps and that is finished in black wood with dark floors? How do you photograph Ninjas at night? This was a classical example of where a cinematographer finds himself lighting up a scene so that it will appear to be dark, so that it will create the illusion of darkness without actually being dark, so that everything is visible without making it look like it takes place during the day?

Working on some of those large sets—the largest I've ever worked on—was very, very difficult. They were constructed as if one of the warlords was about to move in, but as I mentioned earlier, not all of the walls could be moved. A Japanese set is interesting from a working point of view, in the respect that even though it is not constructed to facilitate the making of motion pictures, most of the walls *do* move because they are either sliding walls or sliding doors or *shojis*, so that helped a little.

The floors of these Japanese building were either wooden or made up of *tatami* mats. The *tatamis* in Japan take on an almost religious connotation in that you

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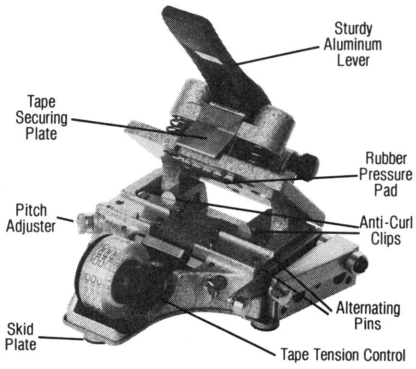

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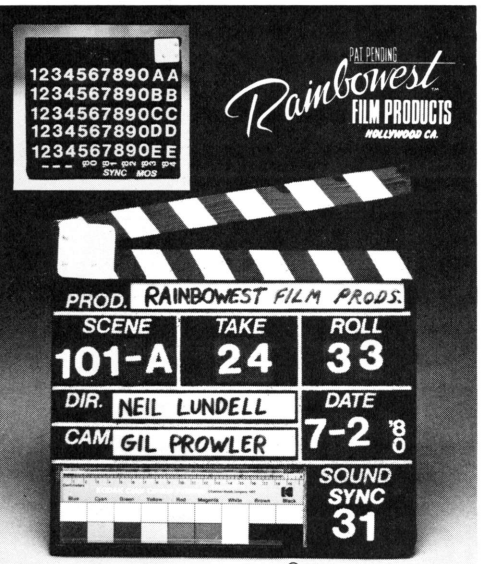

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can't walk on them with shoes. It is very difficult to work on them with tripods or when laying dolly tracks and still maintain the cleanliness of them. It is also most difficult for a dolly grip to make a quick move without his shoes on and still not slide all over the place. This created certain problems and frictions.

Despite the fact that we had huge areas to light during the filming of SHOGUN, we used neither HMI lights nor Brute arcs. One reason for not using the Brutes was that the studios, in most cases, did not have adequate ventilation, so this caused a smoke problem. But the main reason was that our schedule would have been extended if we had been forced to take time for the trimming and resetting of arcs. Add to that the expense of the additional personnel that arcs require and you have several good reasons why arcs were totally eliminated, at least for the studio interiors.

The Japanese studios were equipped with the old-fashioned 10K lights that are fitted with lenses that are bigger than the lenses on Brute arcs. They also had some 20K lights and I fired one up just to see what it would look like. These would probably have been what we would have used on some of our huge sets had there been a need for more powerful sources, except that with the light level we had available, the processing technique we were using and the ultra-speed Panavision lenses, we were really in very good shape in terms of light.

We did manage to use what I called the "big-eye" 10K units on some of the larger sets. They put out a very good concentration of even light and we supplemented their high level of light with that of our lightweight 10Ks which, of course, had proper diffusion and proper barndoors. The result was that even in the largest halls, where we sometimes had to build up the light to a level of about 250 footcandles, the lighting was adequate without the use of HMI units or Brutes.

All that aside, the HMI units would have presented a problem in that none of the studio wiring and voltages would have been trustworthy for us to use. It would have been necessary to bring in an electronic generator in order to use HMI lights with any degree of safety.

The use of camera movement on SHOGUN was no different from that used on any other major project in the States. The studio equipment that was available to us included the most primitive of dollies that would run on wooden or pipe track, but obviously would be limited to forward or backward moves, with the camera mounted on a tripod or high-hat and apple box combination.

We did have our own crab dolly and the studio supplied us with a crane that was

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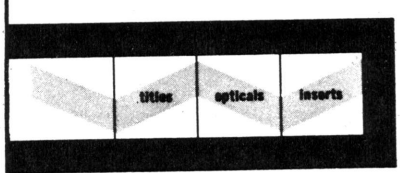

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fairly old-fashioned and certainly not as big as a Titan. In fact, I don't think it was even as big as an Atlas. But in most cases, with extensions on the crane, we were able to get some quite impressive crane shots. The problem with the crane in some of the locations where we were working was that it proved to be an almost impossibly cumbersome piece of equipment to move around. You couldn't shift the wheels over into crab. You couldn't steer the rear wheels as you can on a Chapman crane, so we had a great deal more difficulty setting up crane shots than we would have had on a comparable project in the States.

Dolly shots were a particular problem. We had our crab dolly, of course, but on one location we had the need to lay 300 feet of track for the sequence where Toranaga inspects his troops before going off to war. The problem was that there weren't 300 feet of any single type of track available in Japan, except for the wooden track that was used in the studios. However, in order to lay those wooden tracks we had to have a road grader come out and level the area for a 300-foot stretch, and we had to have a special crew that approached laying this track in almost the same way as if they were building railroad track. As a result, we had a very smooth track, even though it was running slightly uphill. (I think our dolly grips lost a couple of pounds by the end of the day.) But while it was more difficult to make dolly shots than it would have been at home, we nevertheless managed to make pretty good use of dollies.

We had experimented with various filter possibilities prior to beginning the shoot—filters for softness, low-contrast and color. It was decided that color filtration, such as that made possible by the coral filters that are so widely used today, would not be advisable, simply because all of our night shooting, both exterior and interior, featured either torchlight or candlelight or oil light. This, of course, meant that we had to gel the lights to bring them down to a color temperature matching that of the indicated practical sources. If we had used coral filters for our day exteriors, for example, the resultant warm color quality would have been too similar to that of the night sequences. So we eliminated that possibility and, frankly, I'm not personally 100 percent fired up about the use of coral filters simply because they are available. I like to end up with a negative that is true in color and true in exposure. Should the use of additional color be necessary, I find it almost as easy to put it in during the processing stage as photographing it onto the negative. Then, too, once it's on the negative and you decide you don't

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want it, you may have a heck of a time printing it out. I also wanted to have the freedom to go either way, to go cooler or to go warmer, which, of course, would have been vastly limited if I had photographed a color into the negative to start with.

Because of the immense beauty of the Japanese landscape and the unusual qualities of our interior and exterior sets, in many instances I preferred to use no filtration at all, so that we could preserve a fidelity that was as close to an almost documentary approach as possible. The landscapes often had the look of Japanese prints, which are misty, and to have put low contrast on top of this would have been a great mistake, in my opinion. The brilliance of the kimonos, the armor, the weapons, the gold carvings, the sea, the hillsides and the detail that was built into some of the sets would have been damaged had they been subjected to filtration of any kind. One also had to consider that this particular subject was shot primarily for television. When the average television receiver reproduces this image, any softness photographed into the image is magnified and sometimes becomes detrimental to the overall effect. This is not to say that we did not use any filtration. We did use it when we felt that it could enhance the photography of the picture. In such cases we used low contrast filters or diffusion.

Most of our lighting in the night exteriors was softened with either the use of spun glass or what we call "shower curtain" or through the use of reflected bounce light, simply because the Japanese architecture was so angular and sharp to begin with, but there was no editorial policy that dictated that every shot be photographed with a combination of Low Contrast 2 and Diffusion 3, or what have you, in order to bring about an overall effect for the entire picture. Our overall effect for the entire picture was clean, crisp, sharp photography in order to maintain fidelity to what was put in front of the camera.

There are moments during the making of any film when one gets a little bit choked up or, as we say, "turned on" by what one sees through the camera. One such moment in SHOGUN was the tea ceremony between Lady Mariko and her husband, Buntaro—a very, very moving little piece of business, with only one very large bulb simulating the single candle that lit that very touching scene between the two of them. Looking through the camera one sees an image which is unusual, which is simple, which is beautiful—a treasured moment.

Another memorable moment was that of Lady Ishido's birthday party, where the entire set is involved, where we dolly

back down a corridor that is at least 100 feet long and go around a corner and then the *shojis* open and we pan into the room all in one shot, and there is the entire birthday party of hundreds of people sitting in neatly arranged rows in a beautiful great hall of the castle, with the gold carvings and the colorful kimonos. All of that adds up to a wonderful experience.

Going to sea on the *Erasmus,* Blackthorne's ship, which in reality was *The Golden Hinde,* a replica of Sir Francis Drake's ship that was sailed over and remained with us during the entire location filming, was a memorable experience, although a very difficult one because in the course of that one day of shooting I lost about 90 percent of my crew due to seasickness. For some unexplained reason I escaped being sick myself, even though at times, when the going got a bit rough, I felt a little woozy, but managed to hang on and ended up being an assistant cameraman and operator and Director of Photography in one—hanging from the mast, shooting Richard Chamberlain at the helm, and getting some footage that in the projection room looked extraordinary.

All of these were memorable and interesting moments, but even for a man like myself, who had looked forward to going to Japan and experiencing the Japanese way of life and having some *sushi* in the home of *sushi,* eight months away from home and family became a little too much. The caterers who supplied us with food that they considered to be American food—and they were very, very proud of it—didn't realize that when an American eats rice every day for every meal and squid prepared a hundred million different ways (with it still looking, smelling and tasting like squid), the experience gets a little boring. Consequently, when we checked into our hotel in Kyoto (which was our last location), within the first five minutes after the buses had pulled up, almost as if by magic the entire American crew lined up in front of the counter at McDonald's looking for the Big Macs and the Quarter Pounders and the french fries—and all of that wonderful Japanese food that had resulted in the severe weight loss that I was very proud of became a thing of the past for the next several days.

That was one of the light moments that made our lives a little more bearable during the tremendously long and intense shooting period for SHOGUN. As for the crew—the American crew as well as the Japanese crew—I just can't praise them too highly. They were magnificent, wonderful people, very good companions and friends. Working with them made life a great deal easier. ■

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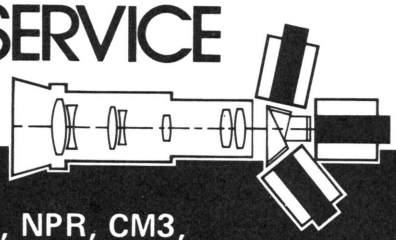

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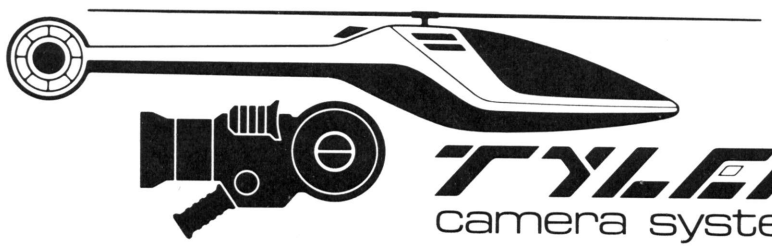

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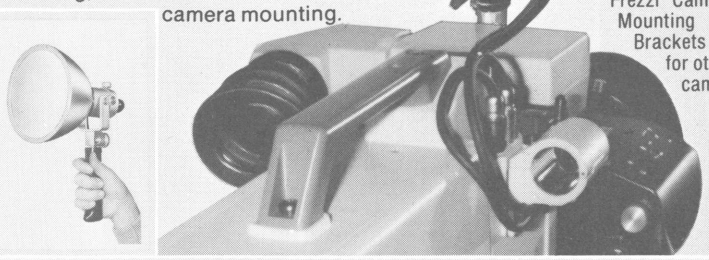

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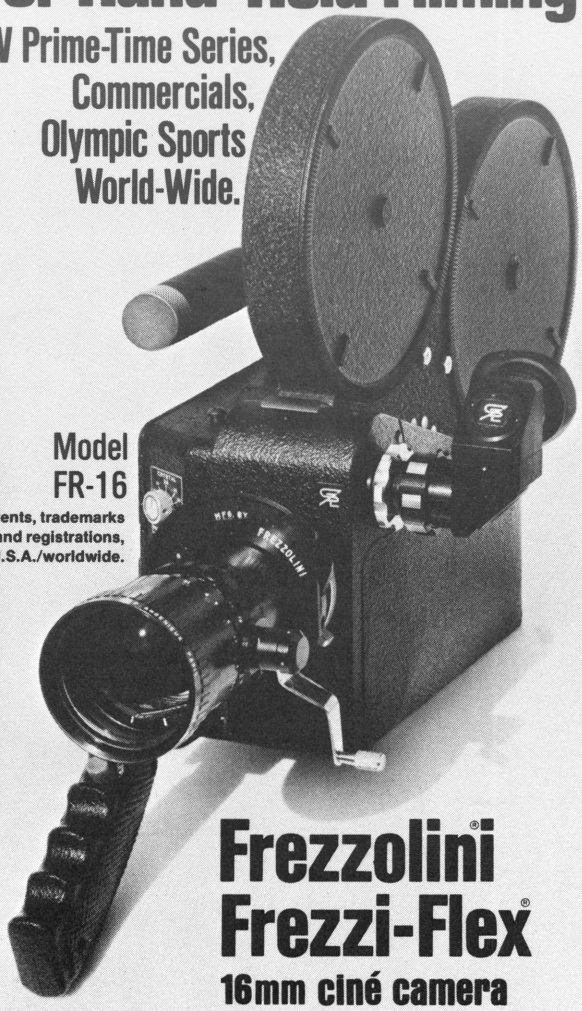

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